

NAVAL POSTGRADUATE SCHOOL

Monterey, California



**LIMITATIONS OF STRATEGIC MANAGEMENT
IN BUREAUS:
THE CASE OF THE DEPARTMENT OF DEFENSE**

Nancy C. Roberts
//

April 1991

Approved for public release; distribution unlimited.

Prepared for: Director, Net Assessment, Office of the Defense, Washington D. C. 20301
Competitive Strategies Office and Strategic Planning Branch, Office of the
Secretary of Defense, Washington D.C. 20301
Defense Policy Office, National Security Council Staff, Washington D.C. 20506

FedDocs
D 208.14/2
NPS-AS-91-008

7-1-63
D-228.142.145-145-91-108

NAVAL POSTGRADUATE SCHOOL
Monterey, California

RADM. R. W. West, Jr.
Superintendent

Harrison Shull
Provost

The report was prepared in conjunction with research conducted for and funded by Director, Net Assessment, Office of the Defense, Washington D.C., Competitive Strategies Office and Strategic Planning Branch, Office of the Secretary of Defense, Washington D.C., Defense Policy Office, National Security Council Staff, Washington D.C.

Reproduction of all or part of this report is authorized.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No 0704-0188

1 REPORT SECURITY CLASSIFICATION UNCLASSIFIED		1b RESTRICTIVE MARKINGS	
2 SECURITY CLASSIFICATION AUTHORITY		3 DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution unlimited	
4 DECLASSIFICATION/DOWNGRADING SCHEDULE			
5 PERFORMING ORGANIZATION REPORT NUMBER(S) NPS-AS-91-008		5 MONITORING ORGANIZATION REPORT NUMBER(S)	
6a NAME OF PERFORMING ORGANIZATION Naval Postgraduate School	6b OFFICE SYMBOL (If applicable) AS/RC	7a NAME OF MONITORING ORGANIZATION	
6c ADDRESS (City, State, and ZIP Code) Monterey, Ca 93943-5100		7b ADDRESS (City, State, and ZIP Code)	
8a NAME OF FUNDING/SPONSORING ORGANIZATION Director, Net Assessment	8b OFFICE SYMBOL (If applicable) OSD/NA	9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER MIPR DWAM 70105/80078/90005	
8c ADDRESS (City, State, and ZIP Code) Office of the Secretary of Defense Washington, DC 20301		10 SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO PROJECT NO TASK NO WORK UNIT ACCESSION NO	
11 TITLE (Include Security Classification) Limitations of Strategic Management in Bureaus: The Case of the Department of Defense			
12 PERSONAL AUTHOR(S) Nancy C. Roberts			
13a TYPE OF REPORT Final	13b TIME COVERED FROM June 90 TO Sep. 90	14 DATE OF REPORT (Year, Month, Day) April 17, 1990	15 PAGE COUNT 71
16 SUPPLEMENTARY NOTATION The views expressed in this paper are those of the author and do not reflect the official policy or position of the DoD or the U.S. Government			
COSATI CODES FIELD GROUP SUB-GROUP		18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number) Strategic Management	
19 ABSTRACT (Continue on reverse if necessary and identify by block number) Additional Sponsors: Competitive Strategies Office and Planning Branch within OSD, and Defense Policy Office, National Security Council Staff.			
20 DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT <input type="checkbox"/> DTIC USERS		21 ABSTRACT SECURITY CLASSIFICATION Unclassified	
22a NAME OF RESPONSIBLE INDIVIDUAL Nancy C. Roberts		22b TELEPHONE (Include Area Code) 408-646-2742	22c OFFICE SYMBOL AS/RC

Abstract

This paper outlines the distinctive features of public bureaus and their consequences for bureau management, especially bureau strategic management. It is argued that bureau strategic management has limited applicability, especially in large, multiorganizational bureaus like the Department of Defense. Rather than endorse the transfer of strategic management principles from business and industry, the author considers the invention and development of new and innovative organizational solutions as the most viable option for the management of the Department of Defense in the future.

Working papers of the Naval Postgraduate School Department of Administrative Sciences are preliminary materials circulated to stimulate discussion and critical comment. The views stated herein are the author's and not necessarily those of the Department of the Navy or the Naval Postgraduate School.

List of working papers on inside backcover.
For additional copies, write to:

Department of Administrative Sciences
Working Paper Series
Code AS
Naval Postgraduate School
Monterey, California 93943-5026
(408) 646-2471

LIMITATIONS OF STRATEGIC MANAGEMENT IN BUREAUS:
THE CASE OF THE DEPARTMENT OF DEFENSE

Professor Nancy C. Roberts
Associate Professor of Strategic Management
Naval Postgraduate School

Please Address All Correspondence To:

Professor Nancy C. Roberts
AS/RC
Naval Postgraduate School
Monterey, CA 93943

(408)-646-2742

April 1991

Prepared for:

Director, Net Assessment, Office of the Secretary of Defense,
Washington D.C. 20301
Competitive Strategies Office and Strategic Planning Branch,
Office of the Secretary of Defense, Washington D.C. 20301
Defense Policy Office, National Security Council Staff,
Washington D.C. 20506

LIMITATIONS OF STRATEGIC MANAGEMENT IN BUREAUS:

THE CASE OF THE DEPARTMENT OF DEFENSE

Introduction

Strategic management is of growing interest to public sector managers (Bozeman and Straussman, 1990; Koteen, 1989). As the concept is drawn from traditional business and industry usage, it has come to describe a conscious, rational decision process by which an organization formulates its goals, and then implements and monitors them, making adjustments as environmental and organizational conditions warrant. Goals are established in light of the organization's resources and its internal strengths and weaknesses, as well as the opportunities and threats that exist in its external environment. Goals are expected to be mutually reinforcing and integrated into a comprehensive whole so organizational activity can be coordinated and controlled (Fredrickson, 1983:566)^{1 2}.

The practice of strategic management is assumed to be transferable to all organizations. While some analysts acknowledge constraints in the application of strategic management to public bureaus (Wortman, 1979; Hosmer, 1982; Wheelen and Hunger, 1986), they nonetheless recommend its introduction and acceptance, with modifications, into public sector practice. In part, these recommendations derive from the assumption that management is a generic process (Baldwin, 1987; Weinberg, 1983). Although the ends of business and government are different, the means of achieving the ends are believed to be similar. Both public and private management have common procedural elements that permit

one to view management as a universal process (Murray, 1983:63). Furthermore, analysts have pointed to a convergence of sectors -- government and business organizations are becoming more similar in terms of their functions, management approaches, and public visibility (Bozeman, 1987; Murray, 1983; Musolf and Seidman, 1980). In fact, recent analysis suggest that all organizations can be viewed as public to the extent that political authority affects their behavior and processes (Bozeman, 1987). These assessments would suggest, therefore, that it is both appropriate and possible to transfer strategic management to public bureaus.

This paper challenges these assumptions. **Strategic management in public bureaus is believed to have limited applicability, especially in large, multiorganizational systems.** To make the initial argument, the differences between public bureaus and private enterprises are summarized in section one. Drawing on the literature, bureaus are found to have unique forms of ownership, funding, and means of social control. These features in turn produce variation between the two sectors in terms of: performance measures; legal and formal constraints; external stakeholder influences; level of coerciveness; breadth of impact; public scrutiny; objectives and criteria for evaluation; hierarchical authority; incentives; and performance characteristics.

Section two examines the impact these unique features have on bureau strategic management. In particular, one finds four major areas where transfer of enterprise strategic management is especially problematic: the formulation of bureau policy; the bureau's adaptation to its external environment; the implementa-

tion of bureau policy; and bureau decision making.

The case of the Department of Defense is used as an illustration in section three. Despite the extensive efforts of strategic analysis, decision-making and planning within DoD, a coordinated, integrated effort to strategically manage the Department has yet to be realized. Although the DoD has some unique features that distinguished it from other large bureaus, the difficulties it has with policy formulation, implementation, environmental adaptation, and decision making are believed to be characteristic of other multiorganizational systems.

Section four provides three response to the problems in transferring enterprise strategic management to the DoD. One could accept the arguments in the paper -- strategic management cannot be transferred to bureaus of this type -- and resign oneself to "muddling through" as the only viable alternative. One could reject of the arguments in this paper, believing instead that strategic management can and should be introduced. Assuming this position, one could endorse the launching of major change project to put into place the necessary and sufficient elements to make strategic management work. Or one could accept the arguments that strategic management is not a panacea for the DoD, turning instead to other innovative solutions and opportunities. The third option is seen as the most viable for the DoD.

UNIQUE FEATURES OF PUBLIC ORGANIZATIONS

There is growing theoretical and empirical literature to document the differences between public and private sector organizations (Rainey, Backoff and Levine, 1976; Perry and Rainey, 1988; Rainey, 1989). Table 1 outlines the major variables that have been used to differentiate between the two domains.

Insert	Table	1	About	Here
--------	-------	---	-------	------

At the far left of the table we see two of the most common distinctions between public and private entities: ownership and funding (Perry and Rainey, 1988:184). **There are two forms of ownership: public and private ownership.** Among public organizations ownership rights are indivisible and cannot be transferred among individuals; ownership rights among private organizations are divisible and can be transferred.

Private firms also are supported through sales or private donations, while public organizations rely on government funding and appropriations or fees based on pre-set formulas. Thus, **there are two distinct forms of funding: public and private.**

A third distinction between public and private organizations is **the mode of social control.** Social control is a dimension that describes the extent to which major components of an organization are subjected to controls by markets or polyarchy (Dahl and Lindblom, 1953; Lindblom, 1977; Perry and Rainey, 1988). Markets, at one extreme of the continuum, have numerous buyers and sellers who have no organized intent to control an organization. Control is exerted by the price system in economic markets

TABLE 1
COMPARISON BETWEEN ENTERPRISES AND BUREAUS

(1)		(2)	(3)	(4)
Institutional Mechanisms for Political and Economic Activity	Organization Types ^(a)	Implications for Organizational Properties ^(b)	Implications for Internal Organizational Processes and Systems ^(c)	Challenges for Strategic Management
Ownership →	1. Bureau	1. Performance Expectations	1. Number of Goals and Objectives	1. Policy Formulation
	2. Government Corporation	2. Performance Measures	2. Standards of Evaluation	2. Performance Standards and Environmental Adaptation
Funding →	3. Government-Sponsored Enterprise	3. Legal and Formal Constraints	3. Authority Relations and Role of the Manager	3. Policy Implementation
	4. Regulated Enterprise	4. External Stakeholder Influence	4. Incentive and Incentive Structures	4. Decision Making
Modes of Social Control →	5. Governmental Enterprise	5. Degree of Coerciveness	5. Performance Characteristics	
	6. State-Owned Enterprise	6. Breadth of Impact		
	7. Government Contractor	7. Public Scrutiny		
	8. Private Enterprise			

(a) Typology from Perry and Rainey, 1988 (b) Adapted from Rainey, Backoff, and Levine, 1976 (c) Adapted from Rainey, Backoff and Levine, 1976

as participants engage in economic exchanges of goods and services between customers and suppliers.

At the other end of the continuum, polyarchy describes bargaining and persuasion among those external to the organization who have some degree of control over the organization. In western democracies polyarchy involves a pluralistic political process: multiple governmental authorities, interest groups, and independent participants contest "the rules" and control through the directives issued by government. And while participants may engage in exchange, the exchanges are not economic but political. Through their exchanges they attempt to change authoritative rulings by marshaling political support and legal authority (Dahl and Lindblom, 1953; Lindblom, 1977; Perry and Rainey, 1988; Wamsley and Zald, 1973).

These three elements, ownership, funding, and social control produce a complex continuum of organizational structures and processes. Eight types outlined by Perry and Rainey (1988) are summarized in column 1 in Table 1. At the market end of the continuum, enterprises have private ownership and private funding with markets as a mode of social control. At the other end, bureaus have public ownership and public funding and a polyarchic mode of social control. The organizational types in between are hybrids representing various combinations of ownership, funding and social control. For example, as a hybrid, government sponsored enterprises such as the Corporation for Public Broadcasting has private ownership, public funding, and a polyarchic mode of social control, while state-owned enterprise such as

Airbus has public ownership, private funding, and a market mode of social control (Perry and Rainey, 1988:196).

These eight organizational types representing different admixtures of ownership, funding and social control are hypothesized to have differential impacts on organization functioning and management (Table 1 column 2). Of particular interest for this discussion is the functioning of bureaus. At least eight organizational and contextual properties are expected to be affected. The eight organizational and contextual properties are: performance expectations; performance measures; legal and formal constraints; external stakeholder influence; degree of coerciveness; breadth of impact; and public scrutiny (Rainey, Backoff, and Levine, 1976; Rainey, 1989).

Reliance on appropriations rather than market exposure is hypothesized to result in different **performance measures** in bureaus. Less able to use market indicators and information (prices, profits, sales) to judge performance, bureaus have few unambiguous and clear **measures of performance**. Without these measures, they are expected to have less incentives for cost reductions, operating efficiency, effective performance, and allocational efficiency compared to enterprises. Instead, performance measures tend to be based on organizational input measures such as resources and personnel, and performance tends to be evaluated in terms of the values of fairness, equity, responsiveness, accountability and honesty, all consistent with the concerns of a democratic society.

Legal and formal constraints (legislative, judicial, hierarchical) puts more limits on purposes, methods, procedures and

spheres of operation of bureaus compared to enterprises. Facing a "jurisdictional jungle (Levine et.al., 1975) bureau managers tend to be circumscribed in the choices they make to enter or withdraw from various activities. A proliferation of formal specifications and controls further delimits managerial and organization action (e.g. Civil Service), while a system of checks and balances embedded in consitutional law opens up more external sources of organizational control and a greater fragmentation of the sources of authority.

External stakeholder influences are believed to be more of a challenge to bureaus with their greater diversity and intensity. In comparison to enterprises, bureaus are expected to be more concerned with stakeholder support. However, this support is tenuous given competing and wide-ranging stakeholder interests that make reconciliation difficult.

Bureau activity is also viewed as representing a greater degree of **coerciveness** compared to enterprise activity. Absent a market mechanism, individual choice is replaced by monopolistic or unavoidable action taken by bureaus. For example, individuals cannot refuse to participate in the financing of most governmental activities (e.g. taxes) and the consumption of many of its services (e.g. social security).

Bureau decisions also seen a having greater **breadth of impact**, influence, and scope. Charged with representing the public interest, the bureau actions compared to those of enterprises take on greater significance and importance, symbolic and otherwise.

And finally, bureaus are thought to be subjected to greater **public scrutiny** compared to enterprises. Given greater stakeholder interests, legal and formal constraints, the potential for coerciveness, and breadth of impact, it is not surprising that their actions are expected to be open for study and review.

Variation in a bureau's internal processes and systems is also expected. Again drawing on Rainey, Backoff, and Levine (1976) and Rainey (1989), variation among the eight organization types is expected to produce an impact on at least four internal organizational processes and systems (column 3 of Table 1): objectives and criteria for evaluation; authority relations and role of the manager; incentives and incentive structures; and organizational performance.

Objectives and criteria for evaluation in bureaus are believed to be more complex, diverse, vague, and intangible. Response to and reconciliation of competing stakeholder interests which represent multiple and diverse performance expectations makes evaluation difficult. In addition, making choices with these interests in mind becomes even more of a challenge when vague and intangible criteria and **standards for evaluation** such as accountability, equity, accountability, and openness are used to assess action.

Hierarchical authority in U.S. government organizations is considered to be weaker in the Executive Branch of government compared to business enterprises. This weakness has been related to the fragmentation and complexity of government at all levels and the ability to bypass hierarchical superiors by appealing to alternative constituencies such as the Congress. The multiple

legal, statutory, and procedural controls noted earlier are also a source for this limited authority. Under these conditions, the **role of the administrator** is more circumscribed with limits on his/her autonomy and flexibility. For example, merit principles limit how administrators hire, fire, and structure the incentives systems for their subordinates. Supervision is challenging as clear objectives and standards of performance are difficult to specify. Emphasis on controls is hypothesized to produce a reluctance to delegate, multiple levels of review and approval, greater numbers of regulations, and fewer efforts to innovate and change.

Incentives and the incentive structure of bureaus are more difficult to devise. Performance evaluations suffer from performance objectives and measures that are vague or ill defined. In addition, the merit system limits experimentation and innovation with incentive structures responsive to unique organizational conditions and situations.

Performance characteristics of bureaus as a consequence of the organizational properties, processes, and systems outlined above are hypothesized to suffer from: red tape, buck-passing, timidity, rigidity, inertia, routinization and inflexibility, procedural regularity and caution, and risk avoidance. Scheduled disruptions such as elections and political appointments also are thought to interrupt sustained implementation of goals, plans and programs, all of which tend to hinder performance.

IMPLICATIONS FOR STRATEGIC MANAGEMENT OF BUREAUS

This brief overview of the uniqueness of bureaus in terms of their contexts, properties and their internal processes and systems has many implications for management in public sector organizations (Rainey, 1989). Of most interest for this analysis, however, is how these differences potentially impact on the strategic management of the bureau.

Analysis to date, while scanty and not well grounded empirically, suggests little reason for optimism. Some analysts like Ring and Perry caution that "...strategic management in the public sector may be extremely difficult." In fact, they write, "if public sector performance is judged against a normative model of strategic management developed in the private sector, it is likely to be found inadequate (1985:281). Others concur pointing to the lack of success of strategic management efforts in public bureaus, warning that "most efforts to produce fundamental decisions and policy changes in government through strategic planning (management) will not succeed." "Strategic planning (management) obviously is no panacea" (Bryson and Roering, 1989:606). And Allison (1983) flatly states that "the notion that there is any significant body of private management practices and skills that can be transferred directly to public management tasks in a way that produces significant improvements is wrong" (pp. 87-88).

One finds at least four major areas of difficulty in transferring strategic management to bureaus: 1) the general manager of a bureau is required to share power with other key players (those both internal and external to the organization) when

formulating organizational policy; 2) bureaus operate in a political economy not an economic one and lack consensually-based indicators to measure organizational performance; 3) the bureau general manager has less autonomy and control compared to the enterprise general manager to induce system coherence, integration and coordination during the policy implementation process; and 4) bureau strategic decision making, as a consequence of the above factors, is much more complex and uncertain compared to enterprise strategic decision making.

Shared Power in Policy Formulation

The most fundamental difference between bureaus and enterprises stems from the Constitution. In business, the functions of general management (formulation of goals and strategy, management of internal organizational systems, and interface with external constituencies) are centralized in the hands of a general manager -- the Chief Executive Officer (Allison, 1983). In bureaus, the functions of the general manager are shared among competing institutions: the executive, two houses of Congress, and the courts. The objective for this constitutional arrangement is to preclude the arbitrary exercise of power. By giving a number of individuals and competing institutions the right to be involved in bureau decisions, each checks the power of the others.

As the Federalist Papers make clear: "The great security against a gradual concentration of the several powers in the same branch consists in giving those who administer each branch the constitutional means and personal motives to resist encroachment

of the others. Ambition must be made to counteract ambition" (Quoted in Allison, 1983:80-81). Thus, in most areas of public policy, responsibility is shared among individuals such as the President and his staff, appointed bureau heads, career officials within the bureau, congresspersons and their staffs.

Bureau general managers reflect how difficult this arrangement is for them, especially those with experience primarily in the private sector. As former Secretary of the Treasury, Michael Blumenthal could not control the policy making process as he had when he was President of Bendix. His power to decide what policy was to be pursued, who was to be involved in its development, how it would be developed, and who was going to administer it, was severely limited. "No one, not even the President, has that kind of power" (Blumenthal, 1983:30). Instead, he shared policy making in Treasury with others inside and outside his organization since "...everybody (felt) that he or she (had) a legitimate piece of the action and must be involved (p.30).

Besides the additional numbers of people engaged in policy debates, the process is complicated by the divergent interests and goals among those involved. In business, Blumenthal's board of directors and shareholders had common interests which they shared with top management. Members of Congress, and government officials, on the other hand, represent no monolithic group. They all have very different backgrounds and represent very different constituent interests. "By definition you cannot please all of them. And whatever policy you follow, you are certain to be attacked and criticized, which is not true in the private sector. So what you learn is that there is no way to

please your constituents in this job the way you can please your constituents in the private sector. You have to learn to live with that situation and survive within it" (Blumenthal, 1983:29).

Adaptation to the Environment

Enterprise strategic management begins with the assumption that adaptation to the environment is paramount for long-term organizational survival. Refusal to acknowledge competitors and their strategies, to initiate or adopt new technologies, or to monitor and respond to socio-political trends can doom an organization to obsolescence. Therefore, monitoring environmental forces, interpreting them as threats or opportunities, and acting on those possibilities, are an important feature of the strategic management process.

Fortunately, the market economy provides a useful scorecard to interpret the organization's capacity for adaptation. As a mechanism to match supply and demand, gauge consumer preferences, and to monitor performance, the market assesses penalties and rewards via sales, return on investments and profits, and other such indicators. Embedded in the logic of the market place is the means to compare one enterprise with another. Such comparisons keep the enterprise accountable to its environment by revealing to what extent it has been effective in doing what it has set out to do and just how efficiently it has gone about it. If the enterprise wants to maintain its course, alter its strategy, or modify what goods and services it offers, it relies on market signals to assess how well it has performed vis-a-vis others. Those signals, translated from the buying behavior of consumers,

provide the ultimate test of enterprise adaptability.

Adaptation to the environment is also of concern for bureau management. Yet bureaus operate in a **political economy**. Political economies differ from market economies in that bureaus have to rely on oversight bodies as their markets (Backoff and Nutt, 1990; Drucker, 1973). These oversight bodies help establish bureau goals and provide the resources necessary to accomplish them. Resources are not allocated by any market mechanism; they require bargaining and negotiating with political authority such as an oversight body in order to alter appropriations.

Unfortunately, the signals in a political economy, especially in a democratic one with polyarchic centers of control, are weak, contradictory, and difficult to interpret. No clear consensus on appropriate indicators of performance such as price, profits, sales, or return on investments exist. There is no "bottom line" to serve as a measure of success. The lack of clear performance measures, together with vague and competing stakeholder interests, make the forging of a consensus on bureau goals and the allocation of resources difficult. Although mechanisms exist to gather and interpret information in the political economy (e.g. voting, political mandates), they only register stakeholder preference on a periodic basis, and the results tend to be generalized to a party or administration, not specific to a bureau policy or strategy.

Instead, bureaus rely on proxy mechanisms to keep managers accountable to their environments. Performance is judged in terms of its compatibility with legal mandates, obligations to a

charter, and current executive and legislative authority interests. In addition, court rulings, enabling legislation, and newly elected administrations all produce directives that the general manager and his/her subordinates are measured against (Backoff and Nutt, 1990).

Unfortunately, these proxy indicators, as mentioned earlier, produce a "jurisdictional jungle" (Levine et al., 1975). They represent a confusing and often competing set of expectations. With conflicting signals from the environment on what policies to pursue, and with few "objective" indicators to track and reward performance, it is understandable that general managers may prefer incremental modifications in the current system rather than embarking on major change efforts which require bold, imaginative strokes. Because a bureau's environment is complex, it is preferable not to venture too far into the unknown. Change is risky: it activates the opposition or creates it where none existed, and potentially upsets a delicate balance among competing stakeholder interests. Besides, focusing on the familiar, deviating only slightly from the status quo, makes it easier to absorb feedback and modify bureau operations as one goes along (Mintzberg, 1974).

Avoiding disruptions and minimizing threats from the environment then is preferable to searching for new opportunities. As long as the general manager's rewards for making marginal adjustments to the status quo exceed the rewards for adapting in more innovative ways, there will be less interest in the organization's adaptive capacity.

Policy Implementation

Given the market mechanism to assess performance and hold the organization accountable, enterprise strategic managers are granted greater responsibility for policy implementation compared to their counterparts in public bureaus. Their responsibility for implementation involves many tasks: designing the organization's structure and culture to match its policy; developing managers and employees to ensure that they have the appropriate background, skills, and attributes to make the policy work; employing the right functional policies to support the organization's overall goals; establishing compatible financial, accounting and information and evaluation systems to monitor organizational performance; and developing personnel systems to reward that performance. These tasks can be left in the hands of the general manager because upper management, boards of directors, and stockholders have market indicators to keep general managers accountable.

The bureau general manager, in comparison, does not have the same level of autonomy in implementing bureau policy. The general manager does not control the personnel system nor the bureau's personnel to the same degree. S/he cannot change the system to fit with the organization's new direction, or hire and fire people as the strategy changes, both of which are usual recommendations in enterprise organizations. Staffing of high-level positions requires Congressional approval. The broad outlines of organizational structures are specified in legislative mandates and are difficult to modify and align as policy changes. Incentives to encourage entrepreneurial behavior or support for a

new policy are circumscribed by law and operate under a set of guidelines established by the Civil Service and the seniority system. The system is devised more to prevent abuse rather than to provide general management control over the implementation process.

Also, as has been mentioned previously, oversight bodies provide the bureau's resource base and politically determine resource allocation. The bureau does not have an independent say over its budget or finances. Authorizations and appropriations emerge from the give and take of legislative process. This check on resource allocation constrains not only **how** policies can be implemented, but ultimately **what** policies can be implemented. No matter how impressive the policy, without adequate funding, implementation becomes a moot point.

It also should be noted that organizational coherence and integration are not major goals in bureaus. While enterprise strategic management is built on the premise that an integrated approach to policy formulation and implementation is essential for organizational effectiveness and efficiency, the same premise does not hold for bureaus. In fact, policy formulators are constitutionally separated from policy implementors. Evaluation of organizational operations and outcomes is not so much the concern of the general manager as much as it is the responsibility of congressional oversight committees. Therefore, the necessary mechanisms important for coordinating organizational activities and monitoring organizational performance, such as management information systems, and financial and accounting systems,

are underdeveloped, and in many cases, non-existent. Bureau systems are not intended to provide coherence. The concern is for "justice, not efficiency; the preservation of liberty, not the best use of economic resources; accountability and legitimacy, not efficiency and effectiveness" (Bower, 1983:174).

Strategic managers in public bureaus are quick to acknowledge the limits in implementing policy and providing organizational coherence. Michael Blumenthal compared bureau with enterprise management and concluded that managing a large federal bureaucracy bore little resemblance to running a large corporation. While he was technically chief of the treasury, he had "little power, effective power, to influence how the thing function(ed)" (Blumenthal, 1983:25). "In government," he commented, "that kind of control (did) not exist" (p.25). Limited in terms of hiring, firing, transferring personnel, providing incentives, and structuring his organizations, he was judged not how well he "ran the place," but on what happened to the economy, the budget, inflation and so forth, all factors external to the bureau and beyond his immediate control. That was not the case in business. There he was judged on whether or not he was a good administrator (pp.25-26).

George Shultz concurs: "In government and politics, recognition and therefore incentives go to those who formulat(e) policy and maneuver legislative compromise. By sharp contrast, the kudos and incentives in business go to the persons who can get something done. It is execution that counts. Who can get the plant built, who can bring home the sales contract, who can carry out the financing, and so on" (Allison, 1983:87).

Decision Making

As a consequence of the unique features of bureau management mentioned above, general managers resort to a particular process to make decisions. Analysts have characterized it alternatively as "muddling through" (Lindblom, 1959;1979), or "disjointed incrementalism," (Braybrooke and Lindblom, 1963). Caught in a pull of competing political forces, with no one central source of power, general managers establish goals and make decisions as they bargain and negotiate with their multiple stakeholders. Rather than having one goal and decision to make about "maximizing" profits or growth, they have a whole array of goals and decisions that emerge from their interactions.

Since it is difficult to coordinate and reconcile these goals given their diversity and in many cases their incompatibility, decisions about goals tend to be made sequentially without integrating them into a whole. Any inconsistencies among them are ignored. Although treating decisions in this disjointed fashion avoids the challenge of coordinating and integrating organizational activity, it opens up a problem of organizational coherence. Sub-parts of the organization can and do end up working at cross purposes, undermining the overall effort. But again, the emphasis is on being responsive and adaptive to multiple and competing stakeholders rather than being concerned for organizational coherence.

The role of the media is also frequently mentioned as a major factor complicating general management's decision making (Malek, 1972; Blumenthal, 1983; Rumsfeld, 1983). Public manage-

ment is described a much more open, "fishbowl" experience. The press coverage can be so intense and leaks of bureau deliberations so pervasive that many policy initiatives are halted before they get off the drawing board. While enterprise general managers deal with the press under exceptional circumstances (in the case of oil spills and product tampering), it is a rare occasion when the press has access to internal operations of a firm as it formulates and implements its strategies. Deliberations are not subjected to the level of scrutiny as they are in bureaus (Ring and Perry, 1985). This openness in bureaus leads policy makers to be as concerned with how policies will look and appear to the various constituencies as they are with how policies will work. In Washington, comments Blumenthal, "appearance is as important as reality" (1983:22-23). And the press plays an important role in establishing that appearance, especially when bureau performance indicators used to signal reality are ambiguous and difficult to define and interpret.

Time also complicates bureau decision making. A bureau general manager's duration in office is usually measured in terms of four-year election cycles, or even less as the fourth and third years in office are interrupted by reelection campaigns. The length of service of politically appointed top government managers averages no more than 18 months for assistant secretaries (Dunlop in Allison, 1983). Changing bureau policy that tends to be locked into statute or regulations is difficult and time-consuming. Also the continuity of new policies, not to mention the linkage between formulation and implementation is limited under these circumstances. The process is further dis-

rupted with very specific time frames for legislative mandated implementation, and yearly congressional budget cycles. Says Harlan Cleveland: "We are tackling 20-year problems with five-year plans staffed with two-year personnel funded by one-year appropriations (Ring and Perry, 1985:281).

THE CASE OF THE DEPARTMENT OF DEFENSE

Given these general limitations and difficulties in transporting strategic management to bureaus, let us turn our attention to a specific bureau, the Department of Defense. The Department receives public funding, operates with a polyarchic means of social control, and is publicly owned. It experiences the same constraints as other public bureaus. It also has unique properties that make the transfer of enterprise strategic management even more difficult.

Policy Ambiguity in a Shared Power World

The DoD operates in a shared power environment with multiple and competing centers of power both internal and external to the organization. The Secretary does not initiate his own policy and strategy. He participates in a fluid process with a complex set of stakeholders. These stakeholders include: the President, his staff, the National Security Council and its staff, international allies, other executive departments of the government, such as State, Treasury, Energy (nuclear energy), Transportation (Coast Guard), Justice (drug enforcement), and Commerce (technology transfer), and powerful members of his own Department such as the Military Departments, combatant Commanders in Chief (CINCs), the

Chairman and the Joint Chiefs, the Defense Agencies and Field Activities, and the OSD staff itself. And in the Congress alone, there are ten Senate committees and 11 House committees that have formal jurisdiction over various aspects of defense policy (Wildavsky, 1988:385).

These alternate centers of power rarely establish a consensus on national security strategy. With the Eisenhower administration as a possible exception, consensus on national security strategy has been infrequent in the post World War II era (Brown, 1989; Hilsman, 1990; Sarkesian and Vitas, 1988).

Without a consensus, it is theoretically and practically difficult to initiate the strategic management process. Strategic management, it should be recalled, is a process to force choice in a world of resource constraints. No system or organization can do everything it wants to do. Upper management is forced to make hard choices and to commit to a course of action that is deemed in the organization's best interest. But if there is no consensus on what the leadership should do, and upper management fails to develop a consensus, make the hard choices, and give direction to the organization, lower-level managers will make their own interpretation of what is best for the organization. The danger is that lower-level management choices are more of a reflection of their parochial interests than they are a reflection of what is best for the whole. Under these conditions, one finds sub-optimization rather than strategic management.

A similar problem exists for the DoD. Lacking a consensus on national security strategy, Presidents are prone to issue very global and vague policy statements. Policy ambiguity rather than

clear and direct policy guidance becomes the norm (National Security Strategy, 1987; 1988; 1990). Managers in DoD, in turn, are left to manage in a policy and strategy vacuum. Forced to build on their own interpretations of the national security interest, their hard choices substitute for those of "upper management" and quite naturally reflect their more specialized, parochial interests. Under these conditions, it is not surprising to find localized interests predominating over organizational interests and less coordination and integration of the whole.

The reluctance to provide specific guidance is a natural byproduct of the U.S. constitution system (Ring and Perry, 1985). While there is variation among Presidents and their Secretaries of Defense in providing specific defense policy and strategy guidance (Etzioni, 1984; Hilsman, 1990; Lord, 1988; Neustadt, 1980), the natural tendency is to avoid stating one's policy preferences in clear and precise terms. There are, in fact, disincentives for such clarity (Hammond, 1988).

From the perspective of dealing with Congress, a President's unambiguous articulation of strategy can "give ammunition to (his) enemies" (Hammond, 1988:6). It makes his administration politically vulnerable by setting up priorities to support one strategic need over another -- support for one international regime as opposed to another, building ships as opposed to missiles or airplanes. There is a preference to avoid mobilizing opposition (both internal and international) and of limiting one's options in the future. Then too there is a danger in being

too explicit about one's intentions. Revealing what one is going to do suggests (given resource constraints) what one is unlikely, unwilling, and unable to do, information that could be valuable to one's competitors. In addition, a lack of announced goals and strategy, especially ones that are fiscally constrained, transfers the hard choices to Congress while the administration avoids the risk of splintering its own coalition and decreasing its own popularity. This is part of the "game that Congress and the President play with one another.... The objective of this game is to let the other player make or appear to make the decision" (Hammond, 1988:8).

There are also disincentives to produce clear ambiguous policy directives built in to the executive office. From the President's perspective, "agencies want guidance for a mixture of good and bad reasons. The good reasons are in order to facilitate their design and implementation of effective programs and their accountability for them. The bad reasons -- bad from the standpoint of the President -- are to reduce their uncertainty at the expense of the performance requirements of the President" (Hammond, 1988:9).

The President may want to change his goals and strategy quickly to meet to environmental exigencies, and do so more rapidly than the DoD can support them. He may prefer incremental commitment to programs, given political constraints, rather than long-term commitments that the DoD weapon procurement programs may require. The President may also want to present and interpret his goals and objectives to different audiences differently. There is a "need to be able to say different things to different

foreign audiences as well as domestic audiences" (Hammond, 1988:12). Keeping a coalition together with multiple and competing objectives in order to gain passage of legislation requires some finesse (Baumer, 1978). Opposition can rally or a shaky coalition can fall apart if clear, unambiguous strategy is articulated. Under these conditions, it may be of benefit to the President to be deliberately vague (Nutt, 1979). Thus, there are many disincentives for the President to issue clear statements of strategy to the DoD, despite the department's administrative need to have them.

Indicators of Performance and Environmental Adaptation

Comparable to other public bureaus, the DoD has difficulty in establishing measures to characterize its performance and environmental adaptation.

Readiness to fight is a DoD measure of performance in times of peace, but it lacks the precision of market indicators. Difficult to define, and open to various interpretations among competing stakeholders, no consensus exists on what readiness means much less how to measure it. To compound the problem, readiness is an "input variable" which focuses attention on equipment and supplies, and draws it away from operations and outcomes. According to critics, the emphasis on "input variables" rather than "output variables" has resulted in major problems with our military operations in the past (Fitzgerald, 1989; Kaufman, 1986; Luttwak, 1985; Perry, 1989).

Reliance on output measures to measure DoD performance also has its disadvantages. Two measures -- winning or losing in

combat -- are indicators that may take too long to determine, as in the case of winning, or may be impossible to rectify as in the case of losing. Reliance on these measures to judge DoD performance is either too time consuming or too risky.

These dilemmas over performance measures led the former Secretary of Defense Harold Brown to conclude that "there is no single number that provides a bottom-line measure of how well the DoD or any other governmental agency is being managed. And there is a whole set of conflicting and often legitimate forces whose pull is neither toward improved efficiency nor toward increased combat capability" (Brown, 1983:217). He goes on to warn that it is "not possible to manage the Department of Defense exactly like a business and to try to get to a bottom line that indicates profit or any other single measurable criterion" (Brown, 1983:217).

Policy Implementation

The Secretary of Defense also suffers from the same lack of control over policy implementation as do other public managers. The implementation functions of the general manager are not centered in his office but are spread out among competing centers of power.

The Secretary does not control his budget, Congress authorizes and appropriates it. The process to produce the budget also is very complex, time consuming, and duplicative, difficult to administer and coordinate (Gansler, 1989; Hendrickson, 1988; Jones and Doyle, 1989; Kanter, 1983; Wildavsky, 1988). Congressional budget involvement and oversight, for example, involves "some 30 committees, 77 subcommittees, and 4 panels....

Every working day... entails on average almost 3 new General Accounting Office (GAO) audits of DoD; an estimated 450 written inquiries and over 2,500 telephone inquiries from Capitol Hill; and nearly 3 separate reports to Congress **each** averaging over 1,000 man-hours in preparation and approximately \$50,000 in cost. Senior DoD officials spend upwards of 40 hours preparing for the 6 appearances as witnesses and the 14 hours of testimony that they provide on average for **each** day Congress is in session" (Cheney, 1989:26-27, emphasis in text). In addition, as one OMB and DoD study found, just to fulfill statute requirements, Congress requires 319 reports of the DoD (GAO Report, 1988).

The Secretary is also restricted, as are other bureau managers, in making organizational changes. Adding or deleting personnel and subunits at the level of the assistant under secretaries of defense, requires the approval of Congress, and can take months before acceptance is granted.

Congress also intervenes to make its own organizational changes and add new units when it deems necessary: prior to 1981, it prescribed functional areas of responsibility -- the Comptroller in 1949, Manpower and Reserve Affairs in 1967, plus a Deputy Assistant Secretary for Reserve Affairs, and Health Affairs in 1969. The small business Act required the department to establish a Director of Small and Disadvantaged Business Utilization in 1978. After 1981, others added were: an Inspector General, A Director of Operational Test and Evaluation, and three Assistant Secretaries with specific functional responsibilities: reserve affairs, command, control, and communications, intelli-

gence, and special operations. Congress even spelled out the duties of new officials requested by the Executive Branch in statutes, details usually left for DoD directives. And it "broke new ground" when it mandated the establishment of a Unified Command for special operations and prescribed its composition and functions in detail (OSD Study Team, 1987a:A-17).

The Secretary of Defense faces other constraints in the administration of the Department. For example, attempts to develop a less rigid personnel management system, giving some degree of flexibility in the hiring and pay of specialized personnel, as was done in the Navy's China Lake project, has yet to be authorized by Congress, although endorsed by the Packard Commission. Base closing, one of many attempts for the DoD to reallocate its resources and personnel, usually meets stiff resistance in Congress, especially if the base is in a congressperson's district.

Decision Making

Given these constraints on the Secretary of Defense in managing the department, and the complexity of department management, decision making in the DoD has been described as "organized anarchy" by some (Sabrosky et.al., 1983), and a "garbage can process" by others (Crecine, 1986; Bromiley 1986). Models of rational decision making on which strategic management is built, assume choice is dependent on a knowledge of alternatives, a knowledge of consequences, a consistent preference ordering, and clear decision rules. Yet these conditions do not obtain in DoD strategic decision making situations. Rather, decision makers are "sharply constrained by circumstances of time, distance, and

organizational complexity and self-interest," all characteristics of organizational anarchies (Sabrosky, et al., 1983:38).

The PPBS (Planning, Programming, and Budgeting System), initiated in the early 1960s by the then Secretary of Defense, Robert McNamara, was intended to bring some order and rationality to decision making within DoD. The goal was to centralize planning in the Office of the Secretary of Defense (OSD), provide guidance to the Services on programming, correlate budgets with plans, and use cost-benefit analysis and other analytical techniques to assist in decision making. It was McNamara's assessment that the problems of the Department of Defense were not the lack of management authority, "but rather the absence of the essential management tools needed to make sound decisions on the really crucial issues of national security (OSD Study Team, 1987a:A-8). PPBS was envisioned as that managerial tool. Within a 15-month cycle, it would eventually translate broad national security objectives and strategy into a 5-year defense plan and a yearly operating budget.

There is debate, however, over the efficacy of PPBS. Despite the fact that it has been in a constant state of evolution since its introduction to the DoD, reformers still criticize its inability to couple expenditures with the department's mission and role as originally intended. Problems arise, they say, because PPBS has not been properly developed and administered. With variations on problem descriptions depending on the source, the following general concerns have been identified: ineffective strategic planning; an insufficient relationship between strate-

gic planning and fiscal constraints; absence of realistic fiscal guidance; failure to emphasize the output side of the defense program; inability to make meaningful JCS program improvements; insufficient attention in the PPBS to execution and control; and the length, complexity, and instability of the PPBS Cycle (Ansoff, 1984; GAO, 1985; SASC, 1985:483-528).

Unique Features of the DoD

Besides the constraints summarized above, there are unique features that limit the portability of strategic management into the DoD: the size and complexity of the department; turnover of personnel; and DoD's mission.

Size and complexity of DoD. The first feature is "the sheer size of the defense establishment: there is simply nothing in American civil society that begins to compare with its awesome dimensions" (Luttwak, 1985:68). Reporting to the Secretary, are twelve major defense agencies, eight major DoD field activities, the Chairman of the JCS, ten Unified and Specified combat commands, three (four if you count the Marine Corps) Military Departments, and thirty-three major officials within OSD. In time of war, one additional uniformed Service, the Coast Guard, would come under the DoD.

Significantly larger than any business, the DoD has over four million active duty, reserve and civilian employees who work directly for it, and over three million additional personnel in the private sector to provide services or products to the DoD (Brown, 1983:216-217; OSD Study Report, 1987:I-3). In comparison, General Motors was ranked by Dun and Bradstreet as the larg-

est private employer in 1986 with only 660,000 employees. The DoD's FY 1987 budget authority was 282 billion was almost three times the sales of General Motors, the company with the largest sales volume (\$103 billion) and four times that of Exxon, the second largest company, with \$70 million in sales (OSD Study Team, 1987a:I3-I4).

The DoD has some 1265 military installations and properties; 870 in U.S., 375 overseas in 21 countries, and 20 in U.S. territories. One quarter of all active duty military personnel are stationed outside of U.S. The FY-88 DoD budget included \$290.8B budget authority requested and \$285.5B budget outlays expected; roughly 5.7% GNP, 26.1% of federal outlays or 17% of net public spending. Also included in DoD's activities are just under \$7B in foreign military sales, \$906M in foreign government grant aids, and \$56M in international military training and education.

Theorists warn that organizations of such size will suffer from control problems inherent in all bureaus. Downs (1976), for example, specified three laws of bureau control: that "no one can control the behavior of a large organization" (Law of Imperfect Control); that "the larger an organization becomes, the weaker is the control over its actions exercised by those at the top (The Law of Diminishing Control); and that "the larger any organization becomes, the poorer is the coordination among its actions (The Law of Decreasing Coordination) (Downs, 1967:132-143). Downs adds that despite efforts to significantly increase the data-handling capabilities of the organization, to improve the accounting systems, to develop high-speed computers,

or to structural modify the organization for enhanced coordination, little can be done, especially for managers at the top, to "overcome the basic working out of these Laws" (p.143). Brown (1982) agrees noting that "one of the most pressing problems of our times is the management of bigness" (1982:74).

Enterprise strategic management deals with the problem of size by recommending that very large companies mimic smaller firms. One way to do this is to create smaller, highly decentralized business units and give the managers who run them greater flexibility and freedom, even profit and loss responsibility, while removing most staff review from the top. Popularized as the "big vs. small" debate in the business press by such writers such as Tom Peters (1982;1986) and George Gilder (1989), the virtues of small, entrepreneurial, agile companies are said to be preferred to the inefficiencies of big business.

Size produces inefficiencies, according to the reasoning, because as the firm grows, size increases specialization among the subunits. Over time, the goals, values, and technologies of the various subunits begin to differentiate from one another. This greater differentiation produces more demands on upper management to coordinate and integrate organizational activities. There reaches a point, some say at about \$50 million in revenues (Byrne, 1989:90), when the top gets overloaded in its integrative role. Despite its attempts to improve coordination with formal procedures, computers, a streamlined organizational structure, the complexity is too much for top management to handle. Upper management begins "choking at the load" (Andrew Grove, CEO In-

tell, 1989).

This condition is especially problematic for enterprises that operate in what are called "turbulent environments," where new technologies and social, political, and economic forces require change and adaptation at a rapid rate in order for the company to stay competitive (Kanter, 1989; Peters, 1988). As upper management attempts to react to the external forces that beset them, integration is passed on to staff or others lower in the hierarchy, or in some cases, is neglected. When this occurs, the organization loses its direction and focus.

Companies such General Electric have begun to take heed of these problems. Its Chairman Jack Welch speaks of transforming GE into a "big-company/small-company hybrid" in order to combine the large corporation's resources with the small company's simplicity and agility (Byrne, 1989:85). Others companies such as ATT are following suit by reducing layers of management, pushing decision making down to lower-level managers, shortcutting approval processes, and reorienting the cultures to make them more entrepreneurial. The pattern is similar to very successful companies like Hewlett-Packard and Johnson & Johnson which have already organized themselves into groups of smaller companies (Byrne, 1989:85).

Decentralized enterprise management is possible in these firms because they have the ability to monitor sub unit performance using indicators such as profit and loss, sales and return on investment. Corporate headquarters sets overall direction, tracks performance and takes corrective action when necessary, while decentralized sub-units run the business, as long as they

meet pre-established measures of performance.

Transferring the "small is beautiful" logic to the DoD is fraught with difficulties, however. Despite its creation as a single entity in 1947, and despite the evolutionary changes over the last 40 years which have produced greater consolidation in the Office of the Secretary of Defense (OSD Study Team, 1987a), the Department of Defense is still described as a fragmented, anarchical collection of feudal baronies (Gabriel, 1979; Luttwak, 1985), a "vast conglomerate of quasi-independent agencies" (Wilson, 1989:211). The services and other powerful actors have enormous influence in Congress, and depending on the preference of the Secretary of Defense, exercise a great deal of control in running their bureaus (SASC, 1985; Odeen, 1985; OSD Study Team, 1987a; Service Secretaries, 1987; Young, 1987).

The Secretary of Defense himself has minimal tools to manage the Department. He lacks the resources, personnel and systems to effectively coordinate and control all the organizations under his authority (Luttwak, 1985; Odeen, 1985; OSD Study Team, 1987a; SASC, 1985; Wilson, 1989). Charles Bowsher, Comptroller General of the United States in his statement to the House Armed Services Committee stated it bluntly: "Our evaluations of DoD's practices clearly show that it does not adequately control its resources; provide its managers, the Congress, or the public with a true accounting for the financial assets entrusted to it; or effectively control costs. DoD needs accurate, and comprehensive information of costs, assets, liabilities and funding" (GAO, 1990:27). Only, recently, for example, has the DoD insti-

tuted a program to develop a unified, non-duplicative information system for the department. Secretary of Defense Cheney brought in Mr. Atwood from General Motors to be in charge of the DoD comptroller office and install GM's Corporate Information Management (CIM) Strategy. According to one analyst, "GM was wrestling with problems with its information systems that are familiar to DoD watchers: divisional parochialism, divisional rivalry, not-invented-here syndrome, duplication, obsolescence, data incompatibilities and attachments to computer architectures that were more theological than technical in basis" (Haga, 1990:1). This system is estimated to take at least ten years or more to implement, although some doubt is thrown on this projection when the current implementation problems are taken into account (Steele and Schweizer, 1991).

It is difficult to translate strategic management theory into practice for multiorganizational bureaus under such conditions. If one takes into account DoD's size, complexity, and need for innovation, theory would recommend some form of decentralization. On the other hand, given DoD's underdeveloped systems and controls, difficulty of measuring performance, costs associated with the redundancies in decentralized systems, the power of its subunits and agencies, and DoD's special mission (described in a following section), theory would advice some form of centralization.

From a theoretical standpoint, therefore, it is not clear what path the DoD should be taking. Given its size and the other features, the institution may be so unique that recommendations from enterprise strategic management will not transfer well as a

consequence. For "as Galileo once defined it in his square cube law, a change of size is a change in form, and consequently in institution (Bell, 1970:68). Based on this reasoning, the DoD may represent a difference in form, a difference in institution.

Personnel Turnover. The DoD experiences regular, and rapid turnover of its civilian personnel, particularly Presidential appointees, as do other cabinet departments. The average tenure is calculated to be about 3 years (Collins, 1982). As of the end of fiscal year 1986, the average tenure of Presidential Appointees in OSD was 24 months and the average tenure of Noncareer Executives was slightly over 30 months (OSD Study Team, 1987a:VII-13).

This rapid turnover limits the participation of top officials in the defense strategy formulation process. Says Collins, "average turnovers (are) so short that even fully qualified civilians and military men customarily (find) it almost impossible to promulgate cohesive policies and programs, much less pursue them to successful conclusions (Collins, 1982:105).

What compounds DoD problems and makes the department even more unique compared with other public bureaus, however, is its mandatory turnover in military personnel. While the time period varies, military personnel typically change their billets once every two to three years to rotate between combat and support functions. This turnover, coupled with civilian changes, challenges institutional memory and continuity of programs. Not only is routine functioning disrupted, but significant change projects suffer from a lack of coordination. New weapons systems, for

example, can take eight to twelve years to develop. A major organizational restructuring can take five years or more to fully implement. New management systems such as CIM can take even longer to get operational. Turnover in both civilian and military personnel puts additional strains on what are normally are challenging tasks in their own right. While strategic management theory assumes that organizational adaptation to the environment is vital for organizational survival, the department's personnel policies limit the continuity of personnel to manage these important adaptations.

Mission and Visibility of DoD. A third unique feature of the DoD is its mission and visibility. Charged with the responsibility of implementing the military strategy of the United States, it must be ready to use violence to achieve national objectives whenever peaceful efforts fail. Every American, some would add the entire international community, has an interest in how well the Department is run, so the stakes are enormous. While enterprise mistakes can have catastrophic financial effects, mistakes in defense, given its deadly arsenal of weapons, can kill us all.

DoD accountability is of great concern under these circumstances. The public, through its presidential elections and oversight committees in Congress, reviews defense policy and its execution. Task forces, blue ribbon commissions and special hearings in Congress investigate various aspects of defense management and provide additional opportunities to examine operations. As we saw in the latest example of Desert Storm, television opens up new avenues by which DoD performance can be judged.

No other bureau is so visible, so important, and elicits so much public interest as does the DoD.

The interest has increased of late due to the growing costs in supporting the department and its mission. Questions such as "How much is enough" have again surfaced as defense dollars compete with other critical services and domestic needs (Entoven and Smith, 1971; Fox, 1988). How these questions will be addressed and answered remains to be determined. For as yet, according to the Packard Commission:

"There is no rational system whereby the Executive Branch and the Congress reach coherent and enduring agreement on national military strategy, the forces to carry it out, and the funding that should be provided -- in light of the overall economy and competing claims on national resources. The absence of such a system contributes substantially to the instability and uncertainty that plague our defense program (President's Blue Ribbon Commission on Defense Management, 1986:472).

It is precisely this type of system that strategic management seeks to introduce, and it is precisely this system that is will be difficult to introduce given the limits outlined in this paper.

Three Options

The previous section has summarized some of the major reasons why strategic management is not readily portable to the DoD. Thus, those interested in DoD management are left with a major dilemma. If strategic management is not a viable alternative for the department, then what options exist to manage this multi-organizational entity, assuming that management is an important concern.

One could envisage at least three general responses: Status

Quo Acceptance; Building Capacity for Strategic Management; and Innovations in Organizational Designs.

Response # 1: Status Quo Acceptance

The first response in very simplified terms accepts the status quo. Differences between enterprises and bureaus, as enumerated in this paper, are acknowledged. There are constraints in managing public bureaus, especially at the strategic level of the organization. Rather than fighting the constraints, proponents of this position would accept them and try to work within them as best they can. The rationale is as follows.

The constraints that public strategic managers experience are a natural outgrowth of our constitutional system. These constraints were intentionally designed into our structure of government and have been elaborated upon over the years because they serve a very important purpose. They were designed to prevent the concentration and abuse of power by any one person, group, or branch of government, and to protect the liberty and freedoms for all citizens. Our constitutional system was not structured for the purpose of organizational efficiency and effectiveness. Instead, efficiency and effectiveness have been "sacrificed on the alter of tedious processes of persuasive coordination" (Chisholm, 1989:201). The competing centers of power, the fragmented decision process in a pluralistic system, and the attendant difficulties of coordination experienced in and among public bureaus are the price we pay for our shared power system of governance.

Calls for more efficiency and effectiveness are the consequence of inappropriately applying the expectations of a ration-

al and comprehensive model of decision making -- a model derived from organizations having a hierarchical authority structure and system of controls -- to bureaus that operate in a complex, fragmented, political world. The informed response to these demands should be that while there are management problems, they need to be put into perspective. The system operates as well as can be expected given its political context. We have prevented the concentration of power, and most specifically the concentration of military power. We have had a stable constitutional system for over two hundred years. The services and the military have served us well. We do not have a system built for efficiency, but that was not the goal. The limitations on our public managers illustrate that the system is working as anticipated. The role of the manager is to learn to function within these constraints.

Thus, the solution is to have managers "muddle through" as best they can (Lindblom (1959;1979)). While system coherence is a concern, the best way to deal with it is by making decisions incrementally throughout the many subunits of governments, making limited adjustments in response to the competing political demands rather than devising comprehensive, integrative strategic plans to cope with the uncertainty and complexity. Furthermore, accommodation to competing interests, and sequential attention to inconsistent goals is not dysfunctional; it is appropriate given the constraints, conditions, and context (Mintzberg, 1978; Quinn, 1980). Although an expected consequence of incremental adaptation is redundancy and fragmentation in and among organizational

systems, it is a small price to pay for our current constitutional arrangement. Then too, an important consideration for the DoD is combat effectiveness, not cost effectiveness, even when troops are not engaged in combat. Although costs are of concern, they are not the driving force, and should not be the driving force, in making strategic and organizational decisions.

There are other advantages to having a more decentralized, pluralistic system, with its redundancies and so-called inefficiencies. The potential for innovation, adaptation and flexibility is greater in these systems. Without the weight and complexity imposed by organizational controls and centralized decision making, there can be greater responsiveness to environmental change and greater experimentation among the competing centers of power. In addition, command systems whether they be military or economic have their problems that make them unacceptable to democratic systems -- the German General Staff and the Soviet economy are two such examples.

We also know that there is no perfect way to design a system; tradeoffs among competing goals are necessary. "If improved coordination is achieved by eliminating multiorganization, then accountability will suffer, along with flexibility and reliability" (Chisholm, 1989:201). Furthermore, Chisholm has speculated that the relationship between coordination and costs is not merely linear. Additional increments of coordination are expected to cost substantially more and "may not be desirable in light of the required tradeoffs with other important values (1989:201). Thus, at some point it may not be worth investing in more coordination. The marginal costs may be too great since the

savings achieved by eliminating some redundancies and inefficiencies are expected to be less than the opportunity costs incurred from increasing coordination.

Response # 2: Building Capacity for Strategic Management

The second option begins with the acknowledgment of the limitations in transferring strategic management to public bureaus. However, it differs from the first option in viewing the limitations, not as roadblocks that must be endured, but as elements that are amenable to change and modification.

The limitations of strategic management in the DoD outlined above are not immutable. If policy formulation has been difficult, either invent new mechanisms of coordination, or find leaders who are capable of forging a new consensus. If implementation is problematic, then search for ways to improve it. If DoD lacks a viable information system, then find and introduce one. If the planning is not resource constrained and linked with budgeting, then conjoin both elements with a new process. If procurement is flawed, correct it. If the Department needs integrated financial and accounting systems to help monitor costs, develop them. If the personnel system is not compatible with a strategic view, then change it. If DoD managers lack skill and experience in strategic management, educate them or bring in managers who do have this background. While it may not be possible to introduce a comprehensive strategic management system for the short run given the aforementioned limitations, it may be possible to build capacity by ensuring that these and other necessary and sufficient elements of strategic management

are in place for the future (Ansoff, 1984; Eadie, 1989)

The limitations of strategic management in public bureaus also may be overdrawn, more a reflection of top management's self-imposed restrictions rather than evidence of system malfunctioning. Lacking education and experience with strategic management, public managers may be too ready to accept "constraints" in managing their bureaus. Where they have options they may only see limitations. Where they have autonomy and control, they may choose not to exercise it.

The issue of resource scarcity cannot be ignored either. The DoD simply can no longer afford the luxury of incremental, adaptive decision making and poor coordination among its multiple organizations. "Muddling through" has become too expensive. Although no organization, enterprise or bureau, ever has all the resources it wants or even needs, now more than ever, hard choices must be made among the competing DoD programs and interests. Strategic management is valuable under these conditions because it is designed to force choice in a resource-constrained world. Armed with explicit goals and strategies, better evaluation systems and controls, and improved organizational systems to monitor costs and ensure operational effectiveness, strategic managers could reduce many of the inefficiencies and redundancies in the department. Better coordination among the services also would be expected to lead to combat effectiveness (SASC, 1985).

Thus, the second option responds to the limitations of strategic management by announcing and launching large-scale programs of change to provide the necessary and sufficient elements of strategic management. Initiated by upper management,

these change programs -- be they new DoD structures, systems, or processes -- would be the foundation on which a fully functioning strategic management program could be built for the future. Patterned after other successful change projects in the public sector, there is reason to expect that, over time, they too could be successful (Golembiewski, Proehl, and Sink, 1981).

Option #3: Innovative Designs

The third option also acknowledges the limitations of transporting strategic management to the DoD. But rather than finding "fault" with the DoD because it has not made the necessary and sufficient changes for strategic management to work, the third option questions the appropriateness of the strategic management model for the DoD in the first place, and seeks to find innovative alternatives in its stead.

The major model of enterprise strategic management tends to be more useful and appropriate for smaller organizations operating in fairly stable environments -- organizations with consistent routines experiencing fewer changes in their technologies, competitors, customers, employees, suppliers, distributors and relations with other key stakeholders such as governmental agencies. It has been less successful in large organizations facing turbulent and complex environments which require adaptation and innovation in response to their changing circumstances (De Greene, 1982; Mintzberg, 1990). In fact, how one strategically manages in a chaotic, turbulent environment is not well understood, nor well practiced (Peters 1988). Under these conditions, some even question the possibility of any purposeful organiza-

tional strategy at all (Astley and Van de Ven, 1983).

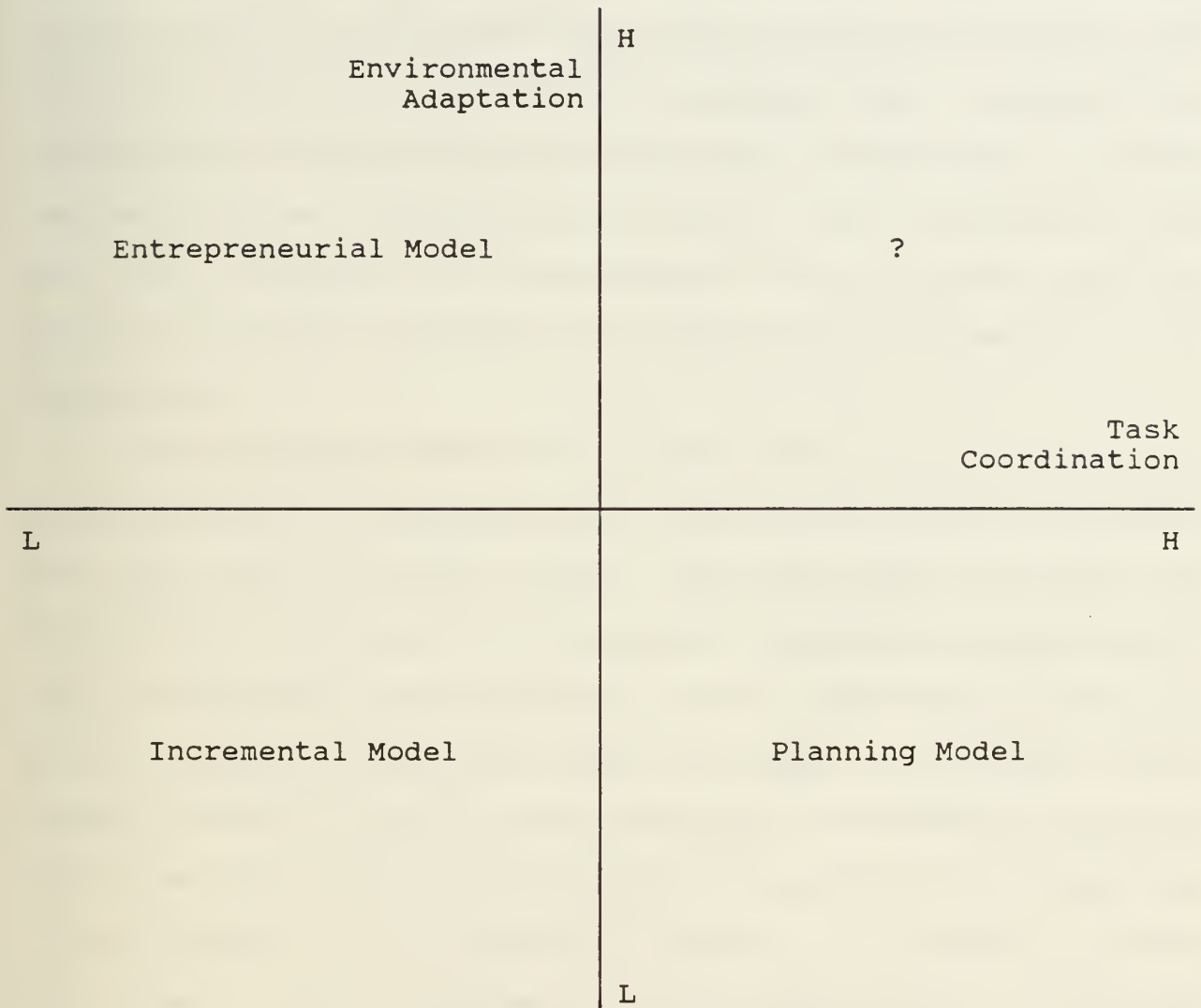
The third option, rather than focusing on the specific elements of the DoD that needed changing, would turn attention to the limitations of the strategic management model itself. Problems in transferring enterprise strategic management should occur, not because of the enormity of the task to be accomplished, but because the model itself is a poor fit with the DoD context. What the DoD needs, as well as other multiorganizational systems managing in very turbulent environments, are new models to guide strategic choice.

Where does one find such models? Enterprise strategic management provides little guidance. While isolated insights have begun to cast doubt on the assumptions of strategic management models (Morgan, 1983; 1986; Mintzberg, 1990; De Greene, 1982; Gemmill and Smith, 1985), strategy research has produced no alternatives. An example will illustrate the point.

According to strategic management theory, if a strategic manager were searching for decision making models to guide the strategy process, s/he would have three alternatives from which to choose: the entrepreneurial model, the incremental model, or the planning model (Mintzberg, 1974). Theoretically, the model selected would depend on the nature of the organization's context and the time needed to make strategic decisions, and the organization's internal task requirements for integration. Figure 1 illustrates how these models can be graphically displayed.

Insert Figure 1 About Here

FIGURE 1
DECISION MAKING MODELS



The **entrepreneurial model** of strategic decision making in quadrant 1 is characterized by the search for innovations and new opportunities. Time is of the essence. Quick, bold responses to environmental opportunities can give an organization an edge over competitors. As a result, the decision making authority tends to rest with an entrepreneur and complex decision processes are avoided since they slow down the response time. Imagination, flexibility and creativity are more highly valued than a concern for coordination, integration and control. The coordination that does occur depends on the entrepreneur and on his/her personal ability to quickly integrate the organizational responses to the environment.

The **incremental model** of strategy making in quadrant 2 is characteristic of organizations with no one central source of power but rather multiple centers, each with their own goals and objectives. Decisions in this complex environment tend to be made in small, disjointed, and incremental steps. The steps are small to avoid triggering resistance from the opposing factions; disjointed because no one has the capacity to interrelate and integrate them given the multiple centers of power and the complexity of the process; and incremental because it is easier to "test the water," collect feedback and make adjustments as one goes along. Integration needs are less of a concern since serial adjustments to accommodate competing demands substitute for reconciliation of interests as a whole and the forging of a coherent entity. Time presses less on decision making, since adaptation to the demands of others is viewed as more important

than responding rapidly for the purpose of innovation and change.

The **Planning Model** of strategic decision making describes a systematic assessment of the costs and benefits of alternate proposals for the future, and through that process, a choice of a desired end state. To achieve this end state, a comprehensive plan is designed to interrelate all organization's decisions and activities. Coordination is paramount to avoid the conflicts inherent when decisions and actions are made independently of one another. Rapid response to the organization's environment is less important than coordinated action. The organization's environment tends to be stable so patterns can be anticipated and built in to the cost benefit analysis. More important to the strategic decision process is the coordination required to implement the comprehensive plan.

The **blank space** in quadrant four underscores the point that no model, as yet, has been identified that would enable decisions makers to make strategic choices quickly in response to environmental changes, while at the same time maintaining the organization's internal coherence and integrative capacity. And yet it is this type of situation that most characterizes the needs of large organizations as they cope with environmental chaos and turbulence. The search is for mechanisms to both enhance internal coordination while at the same time ensure continued flexibility in response to the environment. Organizations, historically, have not done well at both, at least for a prolonged period. The tendency has been to focus on one dimension (either coordination or adaptation) to the detriment of the other.

For example, concentration on internal coordination and

integration tends to make organizations inward looking, without concern for their external environments. If their external environments change, unaware of their contexts, they often have been unable to adapt. The U.S. car companies of the 1970s are good example of this problem. The internal focus on coordination also has tended to push the organization toward centralized decision making, since centralized decision making is thought to be the most efficient and cost effective way to integrate and coordinate organizational activity.

But centralized decision making can become problematic for organizations when the information processing requirements needed to make decisions exceed the capacity of the Chief Executive Officer or his/her support staffs to handle the information required to make decisions. Organizations then begin to add layers of hierarchy to process the information required by the higher levels. Additional layers of hierarchy produce additional complexity which further delays the decision making process, and makes organizations even less responsive to their environments. Costs also rise as the complexity of the decision making process increases and additional numbers of staff and layers of the hierarchy are added to process information.

On the other hand, organizational emphasis on flexibility and responsiveness to the external environment usually provokes various types of decentralization. The organization wants to be closer to its "markets and customers" than a centralized structure permits. Its goal is to be innovative and flexible in response to customer needs. The danger is that decentralization

can produce even greater specialization and fragmentation among the organization's subparts, resulting in less interest and concern for the organization as a whole. Without some mechanisms to hold the organization together, sub-goals can form and threaten organizational cohesion. In addition, while organizational flexibility keeps the organization close to its external contacts, decentralization involves functional redundancies that also increase operating costs.

The need for both coordination and adaptation are evident within the DoD. The nature of DoD's mission, its rising costs, and its deadly weaponry and coercive power has moved reformers to call for more oversight and control (Leahey, 1989). The argument is also made that no one service fights a war; no one service has all the required personnel nor the weaponry. Coordinated action among the services is necessary for combat effectiveness (SASC, 1985). These aspects have moved the organization toward more centralized decision making, as has the need to respond to complaints about inefficiencies, redundancies, and abuses that have been lodged against the department (SASC, 1985).

On the other hand, the complexity of the DoD is already legion. Despite its decentralization, despite the strong hold of the services and the existence of the unified and specified commands, analysts still remark about its "numbing complexity." Complaints about its rigidity and unwieldy decision and planning processes continue to fuel calls for even greater decentralization and flexibility. A rapidly changing international defense environment also reinforces the need to develop more flexible military responses rather than to rely on those designed to fight

a land war in Europe.

The DoD, as do all organizations, must search for the "right" factors to enhance coordination and integration while maintaining flexibility and adaptability to the changing context. But given its unique mission, environment, size, and history, it is not clear what the appropriate combination will be. The search may well require some unique models of organizations that have yet to be invented.

Thus, we are at an important juncture. Models from enterprise strategic management are less appropriate and new models have yet to evolve. We are in search of innovations and new forms of social organization (Drucker, 1988; Jelinek, Litterer, and Miles, 1986; Sayles and Chandler, 1971).

Current suggestions on how to proceed are provocative, but have not produced recommendations developed enough for immediate application to the DoD. For example, to move us beyond our old paradigmatic thinking, some analysts have encouraged the use of innovative concepts and insights which have emerged from the revolution in physics, chemistry, biology, and the cognitive sciences: observer/observation interaction, "mutual causality," "resiliency," "co-evolution," "complementarity," "quantum logic," "dissipative structures," "order through fluctuation," "chaos theory," "self-organizing systems," and "holographic and holonomic order" (Bradley, 1987; Bradley and Roberts, 1989; Roberts, 1987; Gemmill and Smith, 1985; Morgan, 1983) These concepts and insights, while intriguing, have yet to be molded into an coherent epistemology let alone a comprehensive framework

to could guide strategic action in organizations (Daneke, 1990).

Morgan (1986) provides other innovative suggestions. He recommends the use of alternate images or metaphors of organizations to help managers characterize the complex character of organizational life. Rather than relying on the metaphors of the machine or the organism, which have been the earliest and most widely used metaphors of strategic management, he challenges us to look at organizations as holographic or cybernetic systems, or as systems in flux and transformation. He hopes this creative exercise can point to managing and designing organizations in ways not thought possible before.

These possibilities, while promising, await realization in the future as do other equally interesting suggestions from social theorists on self designing organizations, and adaptive designs (De Greene, 1982; Jantsch 1975; 1980). To date, however, no substitute for the current approach to strategic management exists to guide strategic choice in large multiorganizational bureaus. At this juncture, perhaps the best one can hope for is that with "imaginization" will eventually come invention as people begin to recreate and rewrite the strategic map of their organizations.

Conclusion

This paper began challenging the assumption that management is a generic process. Public bureaus and enterprises are viewed as different entities and their differences constrain the portability of management principles from enterprises. The Department of Defense was used as a case example to illustrate the problems in transferring enterprise strategic management to

multiorganizational public bureaus.

Reactions to this analysis are expected to vary. One anticipates at least three general responses as outlined in the last section of the paper. First, one could accept the status quo and counsel understanding since managers are doing the best they can managing public bureaus. Second, one could launch major change projects to build the necessary and sufficient conditions to make strategic management work. If there are constraints in the application of strategic management, then the solution is to eliminate or change them. Third, in place of the management concepts from enterprises, one could search for innovative solutions to solve the unique strategic management problems of public bureaus. If strategic management principles are not portable from enterprise, then the alternative is to invent some that are appropriate for the unique context.

If one selects either of the first two responses, the task for the future is clearer, if not easier. Either maintain things as they are with minimal adjustments, or launch major change efforts to make the DoD and other public bureaus more amenable to strategic management. If one selects the third option, the task is more difficult. While there is some good news -- we need not look to models from business and industry as guidelines for bureau strategic management -- the bad news is that we have nothing else to substitute in their place. We have no models to guide the strategic management of multi-organizational bureaus operating in very complex and chaotic environments.

Before rejecting the third option as out of hand and beyond

our limited capacity, at least in the short run, the reader should be reminded of other DoD innovations. Operations research was born out of a need to understand and plan complex operations in the War II era. Project management, PERT, and matrix organizations evolved from a desire to organize and orchestrate very complex, ambiguous tasks which required the cooperation of multiple organizations working together over a long period of time. If necessity is the mother of invention, then we can anticipate some very interesting organizational innovations.

So it is the third option, at least from this observer's perspective, that opens up more possibilities for the DoD. Finding the logic of "rational," comprehensive action too limiting, the beliefs about management control illusory, and the acceptance of the status quo unimaginative and too costly, one welcomes the discovery of new forms of social organization to open up the promise of the future.

NOTES

¹ Despite the numerous books and articles defining the subject and its practice, there is no agreement on a common definition, nor a common approach to the practice and study of strategic management (Cunningham, 1989). Instead, one relies on two general approaches to capture the essence of strategic management: the synoptic approach and the incremental approach (Fredrickson, 1983).

In very basic terms, the synoptic approach is characterized by "integrative comprehensiveness." There is a conscious attempt to integrate the decisions that compose the organization's overall strategy to insure that the decisions are consciously developed, mutually reinforcing, and integrated into a whole (Fredrickson, 1983:566). In addition, the objective is to integrate the organization's internal roles, processes, structure, and decisions in order to position the organization for the best fit vis-a-vis its market and environment. Thus, good "fit" or "alignment" describes the compatibility between the organization, its external environment, and its preferred strategy -- defined as the means an organization chooses to move it where it is now to where it wants to be in the future (Digman, 1990:6-8). In the simplest of terms, strategic management is a process by which the organization assesses where it is at the present time, decides where it wants to in the future, and then decides the best way to get there (Digman, 1990:7). The process is expected to be analytic, rational, and comprehensive.

On the other hand, with the incremental approach, there is little attempt to consciously integrate individual and organization decisions that affect one another. Strategy emerges from a loose coupling of groups of decisions that are handled individually without integration (Fredrickson, 1983:566). Typically, this type of strategic process is directed at some modification of the current state, and requires little coordination among various groups and individuals in the organization. While the ultimate objective is to achieve "a viable match between the opportunities and risks present in the external environment and the organization's capabilities and resources for exploiting those opportunities" (Hofer, 1973:3), there is no effort to manage this adaptation in a coordinated and integrated way.

Descriptions of the synoptic approach tends to predominate in the business literature, while descriptions of the incremental approach tends to predominate in the policy and public sector literature.

² Besides the difficulties of defining strategic management, there is a great deal of confusion between strategic management and related terms. For example, synoptic strategic management is considered to be different from strategic planning. Strategic planning involves the formulation and evaluation of alternative strategies, the selection of a preferred strategy, and the devel-

opment of detailed plans to put the strategy into practice (Digman, 1990:8).

In contrast, synoptic strategic management consists of both strategic planning and strategic controls. Strategic controls ensure that the chosen strategy is being implemented as anticipated and is producing the desired results. Plans, strategic or otherwise, are not likely to be effective without controls; controls help decision makers compare actual conditions with planned conditions, analyze any differences, and make necessary adjustments. Thus, strategic management is a more encompassing concept than strategic planning; it also describes a continuous process rather than the periodic one of strategic planning (Digman, 1990:7-8).

Strategic management (synoptic) also differs from long-range planning. Long-range planning tends to assume that current trends will continue into the future. Long-range plans, therefore, tend to be linear extrapolations from the present. They require long-range planners to work backwards from the future to specify a sequence of decisions and actions necessary to get to the anticipated future. Consequently, efforts tend to be more focused on specifying goals and objectives and translating them into current budgets and programs. The danger is that long-range planners get locked into a set of decisions and actions that may not be appropriate if the future differs from their projections (Bryson, 1988:7-8).

In contrast, strategic management (synoptic) seeks to anticipate new trends, discontinuities, surprises. It does not extrapolate from the present into the future; it prepares for qualitative shifts in direction. With continual assessment of both the external environment and the organization's capacity, the organization prepares for a number of contingencies. The goal is to remain flexible and keep options open in order to deal with unforeseen circumstances. While a particular strategy may be the preferred one at one point in time, as the organization engages in environmental scanning, analysis, strategic planning and controlling, new strategies may emerge that are more adaptable to and compatible with a changing environment.

Given these distinctions, the synoptic approach is viewed as a more comprehensive and integrated approach to strategic management. While the planning function tends to be located in sub units of the organization, primarily in staff positions, strategic management is the concern and work of the general manager. It is her/his responsibility to forge and execute an organizational strategy compatible with the organization's interest and capability, given environmental constraints and opportunities. Planning is only one of the functions necessary to accomplish these tasks.

REFERENCES

- Aldrich, H. and Auster, E. "Even Dwarfs Started Small: Liabilities of Age and Size and Their Strategic Implications." In L. Cummings and B. Staw (Eds.) Research in Organization Behavior. San Francisco: JAI Press, 1986:165-198.
- Allison, G.T. "Public and Private Management: Are They Fundamentally Alike in All Unimportant Respects?" In J.L. Perry, and K.L. Kraemer (Eds.). Public Management: Public and Private Perspectives. Palo Alto: Mayfield, 1983:72-92.
- Ansoff, H.I. Implanting Strategic Management. Englewood Cliffs, New Jersey: Prentice Hall, 1984.
- Ashmos, D.P. and Huber, G.P. "The Systems Paradigm in Organization Theory: Correcting the Record and Suggesting the Future." Academy of Management Review, 1987, 12(4):607-621.
- Astley, W.G. and A.H. Van de Ven. "Central Perspectives and Debates in Organization Theory." Administrative Science Quarterly, 1983, 28:245-273.
- Backoff, R.W. and Nutt, P.C. "Organizational Publicness and Its Implications for Strategic Management." Paper presented to the Public Sector Division of the Academy of Management, August 12-15, 1990.
- Baldwin, J.N. "Public versus Private: Not That Different, Not That Consequential." Public Personnel Management, 1987, 16:181-193.
- Barrett, A.D. Reappraising Defense Organization: An Analysis Based on the Defense Organization Study of 1977-1980. Washington, D.C.: National Defense University, 1983.
- Baum, H.S. The Invisible Bureaucracy: The Unconscious in Organizational Problem Solving. New York: Oxford University Press, 1987.
- Baumer, D.C. "Implementing public service employment." In J.V. May & A.B. Wildavsky (Eds), The Policy Cycle. Beverly Hills, CA: Sage, 1978:169-197.
- Bell, D. "Quo Warranto? Notes on the Governance of the University in the 1970s," The Public Interest, 19, Spring 1970:68.
- Bell, D. The Coming of Post-Industrial Society. New York: Basic Books, 1973.
- Bemelmans, M.A. (Ed.) Beyond Productivity: Information Systems Development for Organizational Effectiveness. North-Holland: Elsevier Science, 1984.

- Bingman, C.F. and Kee, J.E. "Strategic Management in Federal Government." In J. Rabin, G.J. Miller, W.B. Hildreth (Eds.) Handbook of Strategic Management. New York: Marcel Dekker, 1989:373-402.
- Blumenthal, J.M. "Candid Reflections of a Businessman in Washington." In J.L. Perry and K.L. Kraemer (Eds.), Public Management: Public and Private Perspectives. Palo Alto, CA: Mayfield, 1983:22-33.
- Bower, J.L. "Managing for Efficiency, Managing for Equity." Harvard Business Review, 1983, 61(4):83-90.
- Bower, J.L. Two Faces of Management. New York: New American Library, 1983.
- Bozeman, B. All Organizations Are Public. San Francisco: Jossey-Bass, 1987.
- Bozeman, B. and Straussman, J.D. Public Management Strategies. San Francisco: Jossey-Bass, 1990.
- Bracken, P. "Defense Organization and Management." Orbis, Summer, 1983:253-266.
- Bracken, P. "Strategic Planning for National Security: Lessons from Business Experience." Santa Monica, CA: Rand Strategy Assessment Center, 1990.
- Bradley, R.T. Charisma and Social Structure: A Study of Love and Power, Wholeness and Transformation. New York: Paragon House, 1987.
- Bradley, R.T. and Roberts, N.C. "Relational Dynamics of Charismatic Organization: The Complementarity of Love and Power." World Futures. 1989, Vol. 27:87-123.
- Braybrooke, D. and Lindblom, C.E. A Strategy of Decision: Policy Evaluation as a Social Process. New York: Free Press, 1963.
- Bresser, R.K. and Bishop, R.C. "Dysfunctional Effects of Formal Planning: Two Theoretical Explanations." Academy of Management Review, 1983, (4):588-599.
- Bromiley, P. "Planning Systems in Large Organizations: A Garbage Can Approach with Application to Defense PPBS." In J.G. March and R. Wessinger-Baylon, R. Ambiguity and Command: Organizational Perspectives on Military Decision Making. Marshfield, MA: Pitman, 1986:120-139.
- Brown, D.S. Managing the Large Organization: Issues, Ideas, Precepts, Innovations. Mt. Airy, ML: Lomond Books, 1982.

- Brown, H. Thinking About National Security: Defense and Foreign Policy in a Dangerous World. Boulder, CO: Westview Press, 1983.
- Brown, H. (Ed.) Toward Consensus in Foreign and Defense Policy. Boston: University Press of America, 1989.
- Brown, H. and Schlesinger, J. (Co-Chairmen). "Making Defense Reform Work: A Report of the Joint Project on Monitoring Defense Reorganization." Washington, D.C.: Center for Strategic and International Studies, 1988.
- Brown, M.E. and Snyder, J. "Civilian Attempts to Implement Defense Reform." Paper presented at the Annual Meeting of the American Political Science Association, August 29-September, 1990.
- Bryson, J.M. Strategic Planning for Public and Nonprofit Organizations. San Francisco: Jossey-Bass, 1988.
- Bryson, J.M. and Roering, W.D. "Mobilizing Innovation Efforts: The Case of Government Strategic Planning." In A.H. Van de Ven, H.L. Angle, and Poole, M.S. Research on the Management of Innovation. New York: Harper & Row, 1989:583-610.
- Bryson, J.M., Freeman, E. and Roering, W. "Strategic Planning in the Public Sector: Approach and Future Directions." In B. Checkoyuay (ed.) Strategic Perspectives on Planning Practice. Lexington, MA: D.C. Heath, 1986:65-85.
- Bryson, J.M., Van de Ven, A.H., and Roering, W.D. "Strategic Planning and the Revitalization of the Public Service." In R. Denhardt and E. Jennings, Jr., (eds.) Toward a New Public Service. Columbia: University of Missouri, 1987.
- Builder, C.H. The Army and the Strategic Planning Process: Who Shall Bell the Cat?. Santa Monica: Rand, 1987.
- Builder, C.H. The Masks of War: American Military Styles in Strategy and Analysis. Baltimore: Johns Hopkins University Press, 1989.
- Byrne, J.A. "Is Your Company Too Big?" Business Week. March 27, 1989:84-94.
- Chaffee, E.E. "Three Models of Strategy." Academy of Management Review, 1985, 10(1):89-98.
- Cheney, D. "Defense Management: Report to the President." Department of Defense. July 1989.
- Chisholm, D. Coordination Without Hierarchy: Informal Structures in Multiorganizational Systems. Berkeley: University of California Press, 1989.

- Cleveland, H. "Public Management Research: The Theory of Practice and Vice Versa." Paper presented at the Public Management Research Conference, Brookings Institution, Washington D.C., 1979.
- Collins, J.M. US Defense Planning: A Critique. Boulder, CO: Westview, 1982.
- Crecine, J.P. "Defense Resource Allocation: Garbage Can Analysis of C3 Procurement" in J.G. March and R. Wessinger-Baylon, Ambiguity and Command: Organizational Perspectives on Military Decision Making. Marshfield, MA: Pitman, 1986:72-119
- Crow, M. and Bozeman, B. "Strategic Public Management." in J.M. Bryson and R.C. Einsweiler, (eds.) Strategic Planning in the Public and Nonprofit Sectors. Washington D.C.: Planners Press, 1988.
- Cunningham, R.B. "Perspectives on Public-Sector Strategic Management." J. Rabin, G.M. Miller, W.B. Hildreth (Eds.) Handbook of Strategic Management. New York: Marcel Dekker, 1989:123-139.
- Dahl, R.A. and Lindblom, C.E. Politics, Economics, and Welfare. New York: Harper and Brothers, 1953.
- Daneke, G.A. "On Paradigmatic Progress in Public Policy Administration." Policy Studies Journal, 1988-89, 17(2):277-296.
- Daneke, G.A. "Strategic Management of Chaotic Environments: An Advanced Systems Perspective." Paper presented to the Academy of Management, San Francisco, August 1990.
- De Geus, A.P. "Planning as Learning." HBR, 1988, March-April, 70-74.
- De Greene, K.B. The Adaptive Organization: Anticipation and Management of Crisis. New York: Wiley & Sons, 1982.
- Denhardt, R.B. "Public Administration Theory: The State of the Discipline." In N.B. Lynn and A. Wildavsky, Public Administration: The State of the Discipline. Chatham, N.J.:1990:43-72.
- Department of Defense. Defense 88 Almanac. Alexandria, VA: American Forces Information Service, September/October, 1988.
- Digman, L. A. Strategic Management. Homewood, IL: BPI/Irwin, 1990
- Dillon, G.M. (Ed.) Defense Policy Making. Leicester, Leicester University Press, 1988.

- Downs, A. Inside Bureaucracy. Boston, MA: Little, Brown & Co., 1967.
- Drucker, P. "Managing the Public Sector Institution." The Public Interest. 1973, (33): 75-93.
- Drucker, P. "The Coming of the New Organization." Harvard Business Review. January-February, 1988:45-53.
- Dunlop, J.T. "Public Management." Draft of an unpublished paper and proposal. Summer, 1979. Cited in Allison, G.T. "Public and Private Management." 1983:72-92.
- Eadie, D.C. "Building the Capacity for Strategic Management." In J. L. Perry (Ed.) Handbook of Public Administration. San Francisco: Jossey-Bass, 1989:162-175.
- Eldridge, W.H. "Why Angels Fear to Tread: A Practitioner's Observations and Solutions on Introducing Strategic Management to a Government Culture." J.Rabin, G.J. Miller, W.B. Hildreth (Eds.) Handbook of Strategic Management. New York: Marcel Dekker, 1989:319-336.
- Elgin, D.S. and Bushnell, R.A. "The Limits to Complexity: Are Bureaucracies Becoming Unmanageable?" The Futurist, December 1977:337-349.
- Enthoven, A.C. and Smith, K.W. How Much Is Enough?. New York: Harper & Row, 1971.
- Etzioni, A. "National Security: Mangled by Interest Groups." In Capital Corruption. San Diego: Harcourt Brace and Jovanovich, 1984:102-130.
- Fitzgerald, A.E. The Pentagonists. Boston: Houghton Mifflin, 1989.
- Fottler, M.D. "Management: Is it really generic?" Academy of Management Review, 1981, 6:1-12.
- Fox, R.J. The Defense Management Challenge. Boston: Harvard Business School Press, 1988.
- Fredrickson, J.W. "Strategic Process Research: Questions and Recommendations." Academy of Management Review, 1983, 8(4):565-575.
- Gabriel, R.A. "Acquiring new values in military bureaucracies: A Preliminary Model." Journal of Political and Military Sociology, 1979, 7(1):119-139.
- Gansler, J. Affording Defense. Cambridge: MIT Press, 1989.

- George, J.L., Sheridan, R.E., West, F.J., Sherman, M.E. Review of USN Long-Range Planning. Alexandria, VI: Center for Naval Analysis, 1985.
- Gemmill, G. and Smith, C. "A Dissipative Structure Model of Organization Transformation." Human Relations, 1985, 38(8):751-766.
- General Accounting Office. "Defense Management: Status of Recommendations by Blue Ribbon Commission on Defense Management." Washington, D.C.: GAO, 1988.
- General Accounting Office. "Department of Defense: Improving Management to Meet the Challenges of the 1990s." Washington, D.C.: GAO/T-NSIAD-90-57.
- General Accounting Office/DoD. "PPBS in DoD." Washington, D.C., 1985.
- Gilder, G. Microcosm: The Quantum Revolution in Economics and Technology. New York: Simon and Schuster, 1989.
- Goldwater, B.M with Casserly, J. Goldwater. New York: Doubleday, 1988.
- Golembiewski, R.T. "Public Sector Organization Behavior and Theory: Perspectives on Nagging Problems and on Real Progress." In N.B. Lynn and A. Wildavsky (Eds.) Public Administration: The State of the Discipline. Chatham, N.J.: 1990, 127-156.
- Golembiewski, R.T. "Strategy and Structure: Development Themes and Challenges." In J. Rabin, G.J. Miller, and W.B. Hildreth (Eds.) Handbook of Strategic Management. New York: Marcel Dekker, 1989:91-121.
- Golembiewski, R.T, Proehl, C.T., and Sink, D. "Success of OD Applications in the Public Sector: Toting Up the Score for a Decade, More or Less." Public Administration Review, 1981, 41:679-682.
- Goodsell, C.T. The Case for Bureaucracy: A Public Administration Polemic. Chatham, N.J.: Chatham House Publishers, 1983.
- Goold, M. and Quinn, J.J. "The Paradox of Strategic Controls." Strategic Management Journal, 1990, Vol. 11:43-57.
- Gortner, H.F. Administration in the Public Sector. New York: Wiley & Sons, 1981.
- Gortner, H.F., Mahler, J. and Nicholson, J.B. Organization Theory: A Public Perspective. Chicago: Dorsey Press, 1987.

- Grant, L. Foresight and National Decisions. Lanham, MD:University Press of America, 1988.
- Grove, A. Presentation to Strategic Management Society, San Francisco, 1989.
- Haffa, R.P. Rational Methods, Prudent Choices: Planning US Forces. Washington, D.C.: National Defense University Press, 1988.
- Haga, W.J. "Corporate Information Management in the Department of Defense: Proposal for Case Research." Unpublished paper, Naval Postgraduate School, 1990.
- Hammond, P. Y. "Disincentives for the Development of National Strategy: The Executive Branch." Paper presented to a symposium sponsored by the National Defense University on "The National Security Process: The Making of National Strategy for the 1990's and Beyond." December 2-3, 1988.
- Hammond, P.Y. "Fulfilling the Promise of the Goldwater-Nichols Act in Operational Planning and Command." Unpublished manuscript, University of Pittsburgh, 1989.
- Hart, S.L. "The Four Faces of Strategy-Making: Linking Process and Performance." Paper presented to Academy of Management, San Francisco, August 1990.
- Heclo, H. A Government of Strangers: Executive Politics in Washington. Washington: Brookings Institution, 1977.
- Hedberg, B.L.T., Nystrom, P.C., and Starbuck, W.H. "Camping on Seesaws: Prescriptions for a Self-Designing Organization." Administrative Science Quarterly, 1976, 21:41-65.
- Henderson, B.D. "The Concept of Strategy." Boston, MA: Boston Consulting Group, 1981.
- Hendrickson, D. Reforming Defense. Baltimore: Johns Hopkins Press, 1988.
- Hendrickson, D.C. The Future of American Strategy. New York: Holmes & Meier, 1987.
- Heymann, P.B. The Politics of Public Management. New Haven: Yale University Press, 1987.
- Hilsman, R. The Politics of Policy Making in Defense and Foreign Affairs. 2nd ed. Englewood Cliffs, NJ: Prentice Hall, 1990.
- Hobkirk, M. "Reform Across the Sea: A Comparison of Defence Policy Making in the UK and the USA." Journal of the Royal United Services Institute for Defence Studies, September 1987:55-60.

- Hofer, C.W. "Some preliminary research on patterns of strategic behavior." Academy of Management Proceedings. 1973:46-59.
- Hosmer, L.R. "Strategic Design in Public (Nonprofit) Institutions." In Strategic Management. Englewood Cliffs, New Jersey: Prentice-Hall, 1982:412-431.
- Huntington, S.P. The Soldier and the State. Cambridge, MA: Harvard University Press, 1957.
- Hurst, D.K. "Why Strategic Management is Bankrupt." Organizational Dynamics, 1986, 15:4-27.
- Inderfurth, K.F. and Johnson, L.K. (Ed.s). Decision of the Highest Order: Perspectives on the National Security Council. Pacific Grove, CA: Brooks/Cole, 1988.
- Ikle, F.C. and Wohlstetter, A. (Chairmen). Discriminate Deterrence: Report of the Commission on Integrated Long-Term Strategy. Washington, D.C.: Office of the Secretary of Defense, 1988.
- Jantsch, E. Design for Evolution: Self-organization and Planning in the Life of Human Systems. New York: Braziller, 1975.
- Jantsch, E. The Self-Organizing Universe. New York: Pergamon Press, 1980.
- Jelinek, M, Litterer, J.A., and Miles, R.E. "The Future of Organization Design." In M. Jelinek, J. Litterer, and R. Miles (Eds.) Organizations by Design: Theory and Practice. Plano, Texas: Business Publications, 1986:527-543. 2nd edition
- Joint Staff. Chairman, Joint Chiefs of Staff Report on the Management Study of the Organization of the Office of the Secretary of Defense. 28 July 1987.
- Jones, L.R. "Policy Development, Planning and Resource Allocation in the Department of Defense." Paper presented to the Association of Public Policy and Management, San Francisco, 1990.
- Jones, L.R. and Doyle, R.B. "Public Policy and Management Issues in Budgeting for Defense." Paper presented to the Association of Public Policy and Management, Washington D.C., November 1989.
- Kanter, A. Defense Politics: A Budgetary Perspective. Chicago: University of Chicago Press, 1983.
- Kanter, R.M. "The New Managerial Work." HBR, 1989, November-December, pp. 85-92.

- Kaufmann, W.W. "A Defense Agenda for Fiscal Years 1990-1994." In Restructuring America's Foreign Policy. Washington, D.C.: The Brookings Institution, 1989:48-93.
- Kaufmann, W.W. A Reasonable Defense. Washington, D.C.:Brookings, 1986.
- Koteen, J. Strategic Management in Public and Nonprofit Organizations. New York: Praeger, 1989.
- Kovacic, W.E. "Blue Ribbon Defense Commissions: The Acquisition of Major Weapon Systems." In R. Higgs (Ed.) Arms, Politics, and the Economy: Historical and Contemporary Perspectives. New York: Holmes & Meier, 1990:61-103.
- Kraemer, K. "Managing Information Systems." In J.L. Perry (Ed.) Handbook of Public Administration. San Francisco: Jossey-Bass, 1989: 527-544.
- Kropp, R.D. "JCS Planning: Assessment and Recommendations." Master's Thesis. Monterey CA: Naval Postgraduate School, 1989.
- Landau, M. and Stout, R. "To Manage is Not to Control: Or the Folly of Type II Errors." Public Administration Review, 1979, March/April, pp. 148-156.
- Leahey, M.J. "A History of Defense Reform Since 1970." Master's Thesis. Monterey: Naval Postgraduate School, 1989.
- Levine, C.H., Backoff, R.W., Cahoon, A.R. and Siffin, W.J. "Organizational Design: A Post Minnowbrook Perspective for the 'New' Public Administration." Public Administration Review, July/August, 1975:425-435.
- Lindblom, C.E. Politics and Markets. New York: Basic Books, 1977.
- Lindblom, C.E. "Still Muddling, not yet through." Public Administration Review, 1979, 39, 517-526.
- Lindblom, C.E. "The Science of Muddling Through." Public Administration Review, 1959, 19(2):79-88.
- Lindsey, J. "Congress and Defense Policy: 1961-1986." Armed Forces and Society, 13(3), Spring 1987:371-401.
- Lord, C. The Presidency and the Management of National Security. New York: Free Press, 1988.
- Luttwak, E.N. Strategy. Cambridge: Harvard University Press, 1987.

- Luttwak, E.N. The Pentagon and the Art of War. New York: Simon and Schuster, 1985.
- Lynn, L. E. "The Strategic Management of Government Organizations." Paper presented to the Association of Public Policy and Management, Seattle, Washington, 1988.
- Malek, F.V. "Mr. Executive Goes to Washington." Harvard Business Review, 1972, 50(5), 63,68.
- March, J.G. and Wessinger-Baylon, R. Ambiguity and Command: Organizational Perspectives on Military Decision Making. Marshfield, MA: Pitman, 1986.
- Maruyama, M. "Mindscapes, Management, Business Policy and Public Policy." Academy of Management Review, 1982, 7(4):612-619.
- Mearsheimer, J.J. "The Military Reform Movement: A Critical Assessment." Orbis, Summer, 1983:285-300.
- Meehan, R.P. Plans, Programs, and the Defense Budget. Washington, D.C: National Defense University, 1985.
- Methe, D.T. and Perry, J.L. "Incremental Approaches to Strategic Management." J. Rabin, G.J. Miller, W.B. Hildreth (Eds.) Handbook of Strategic Management. New York: Marcel Dekker, 1989:35-53.
- Meyer, M.W. "`Bureaucratic'" vs. "`Profit'" Organization. In B.M. Staw and L.L. Cummings (Eds.), Research in Organizational Behavior. Greenwich, CT: JAI Press, 1982:89-26.
- Meyers, H.B. "Businessman in a Political Jungle." Fortune, April, 1964:133-135. 187-195.
- Mintzberg, H. "Patterns in Strategy Formulation." Management Science, 1978, 24, 934-948.
- Mintzberg, H. "Strategy-Making in Three Modes." California Management Review, 16(2), 1974:44-53.
- Mintzberg, H. "The Design School: Reconsidering the Basic Premises of Strategic Management." Strategic Management Journal, 1990, Vol. 11, pp. 171-195.
- Montanari, J.R., Daneke, G.A., and Bracker, J.S. Strategic Management for the Public Sector: Lessons from the Evolution of Private-Sector Planning." J.Rabin, G.J. Miller, W.B. Hildreth (Eds.) Handbook of Strategic Management. New York: Marcel Dekker, 1989:303-317.
- Morgan, G. Images of Organization. Beverly Hills: Sage, 1986.

- Morgan, G. "Rethinking Corporate Strategy: A Cybernetic Perspective." Human Relations, 1983, 36(4):345-360.
- Moses, L.J. The Call for JCS Reform. Washington, D.C: National Defense University Press, 1985.
- Murray, M.A. "Comparing Public and Private Management: An Exploratory Essay." In Perry, J.L. and Kraemer, K.L. (Eds.). Public Management: Public and Private Perspectives. Palo Alto: Mayfield, 1983:60-71.
- Musolf, L., and Seidman, H. "The Blurred Boundaries of Public Administration." Public Administration Review, 40:124-130.
- National Security Strategy of the United States. Washington D.C.: The White House, 1987.
- National Security Strategy of the United States. Washington D.C.: The White House, 1988.
- National Security Strategy of the United States. Washington D.C.: The White House, 1990.
- Neustadt, R.E. Presidential Power: The Politics of Leadership from FDR to Carter. New York: Macmillan, 1980.
- Niskanen, W.A. "More Defense Spending for Smaller Forces: What Hath DoD Wrought?" Policy Analysis. Washington, D.C.: Cato Institute, No. 110, July 1988.
- Nutt, P.C. "Calling Out and Calling Off the Dogs: Managerial Diagnosis in Public Service Organizations." Academy of Management Review, 1979, 4, 203-214.
- Odeen, P.A. (Chairman). "Toward a More Effective Defense: Final Report of the CSIS Defense Organization Project." Washington, D.C.: Center for Strategic and International Studies, 1985.
- Office of the Secretary of Defense. Organization and Functions Guidebook. Washington, D.C.: The Pentagon, 1987.
- Office of the Secretary of Defense. "White Paper on the Department of Defense and the Congress." March 1990.
- Office of the Secretary of Defense, Study Team. "Management Study of the Office of the Secretary of Defense." Washington D.C.: The Pentagon, 1987a.
- Office of the Secretary of Defense, Study Team. "Reassessment of Defense Agencies and DoD Field Activities." Washington, D.C.: The Pentagon, 1987b.
- Perlmutter, A. The Military and Politics in Modern Times. New Haven: Yale University Press, 1977.

- Perry, J.L. (Ed.) Handbook of Public Administration. San Francisco: Jossey-Bass, 1989.
- Perry, J.L. and Rainey, H.G. "The Public-Private Distinction in Organization Theory." Academy of Management Review, 1988, 13(2):182-201.
- Perry, J.L. and Kraemer, K.L. (Eds.). Public Management: Public and Private Perspectives. Palo Alto: Mayfield, 1983.
- Perry, M. Four Stars. Boston: Houghton Mifflin, 1989.
- Peters, T. Thriving on Chaos: Handbook for a Management Revolution. New York: Harper & Row, 1988.
- Peters, R. and Austin, N. A Passion for Excellence. New York: Warner Books, 1985
- Peters, T. and Waterman, R.H. In Search of Excellence. New York: Harper & Row, 1982.
- President's Blue Ribbon Task Force on Defense Management (Also Known as the Packard Commission). A Quest for Excellence - Final Report to the President. Washington D.C.: U.S. Government Printing Office, June 1986.
- Quinn, J.B. Strategies for Change: Logical Incrementalism. Homewood, IL: Irwin, 1980.
- Rainey, H.G. "Public Management: Recent Developments and Current Prospects." In N.B. Lynn and A. Wildavsky (Eds.) Public Administration: The State of the Discipline. Chatham, N.J.: Chatham, 1990:157-184.
- Rainey, H.G. "Recent Research on the Political Context and Managerial Roles, Structures, and Behaviors." Journal of Management, 1989, 15(2):229-250.
- Rainey, H.G., Backoff, R. W., and Levine, C.L. "Comparing public and private organizations." Public Administration Review, 1976, 36:233-246.
- Record, J. "Jousting with Unreality: Reagan's Military Strategy." International Security, 8(3), 1984:3-18.
- Record, J. "Reagan's Strategy Gap." New Republic, Oct. 29, 1984:17-21.
- Rehfuess, J. The Job of the Public Manager. Chicago: The Dorsey Press, 1989.

- Ring, P.S. and Perry, J.L. "Strategic Management in Public and Private Organizations: Implications of Distinctive Contexts and Constraints." Academy of Management Review, 1985, 10(2):276-286.
- Roberts, N.C. "Methods for Studying Holonomic Properties of Social Organization." Symposium for the Research Methods Division, Academy of Management, 1987.
- Rourke, F. Bureaucracy, Politics, and Public Policy. 3rd ed. Boston: Little, Brown, 1984.
- Rumsfeld, D. "A Politician-Turned-Executive Surveys Both Worlds." In Perry, J.L. and Kraemer, K.L. (Eds.). Public Management: Public and Private Perspectives. Palo Alto: Mayfield, 1983:34-40.
- Salancik, G.R. and Meindl, J.R. "Corporate Attributions as Strategic Illusions of Management Control." Administrative Science Quarterly, 1984, 29:238-254.
- Sabrosky, A.N., Thompson, J.C., and McPherson, K.A. "Organized Anarchies: Military Bureaucracy in the Future." In W.B. Littrell, G. Sjober, and L.A. Zurcher (Eds.) Bureaucracy as a Social Problem. Greenwich, CN: JAI Press, 1983.
- Sapolsky, H. The Polaris System Development: Bureaucratic and Programmatic Success in Government. Cambridge: Harvard University Press, 1972.
- Sarkesian S.C. and Vitas, R.A. US National Security Policy and Strategy. New York: Greenwood Press, 1988.
- Sayles, L. and Chandler, M.K. Managing Large Systems: Organizations of the Future. New York: Harper & Row, 1971.
- Schweizer, D. and Steele, J. "Corporate Information Management: A Case Study." Unpublished M.S. Thesis, Naval Postgraduate School, Monterey California, 1991.
- Senate Armed Services Committee, Staff Report. Defense Organization and the Need for Change. Washington, D.C.: U.S. Government Printing Office, 1985.
- Seidman, E. "Of Games and Gains." The Bureaucrat, 13(Summer 1984:4-8.
- Service Secretaries. Service Secretaries' Joint Study of the Office of the Secretary of Defense. 31 August 1987.
- Smith, P.M. Assignment Pentagon. Washington: Pergamon-Brassey, 1989.

- Smith, P.M., Allen, J.P., Stewart, J.H., Whitehouse, F.D. Creating Strategic Vision: Long-range Planning for National Security. Washington, D.C.: National Defense University Press, 1987.
- Spinney, F.C. "A Defense Strategy that Works." Proceedings, January 1990:97-99.
- Steele, J. and Schweizer, D. "CIM: A Case Study." Master's Thesis. Monterey, CA: Naval Postgraduate School, 1991.
- Stockman, D. The Triumph of Politics. New York: Avon Books, 1987.
- Stubbing, R. and Mendel, R. The Defense Game. New York: Harper & Row, 1988.
- Sullivan, L. "Defense Sufficiency and Preparedness." National Defense, May/June, 1990:42-46.
- Thibault, G.E. (Ed.) The Art and Practice of Military Strategy. Washington, D.C: National Defense University, 1984.
- Thompson, F.J. "Managing Within the Civil Service Systems." In J.L. Perry (Ed.) Handbook of Public Administration. San Francisco: Jossey-Bass, 1989:359-374.
- Toffler, A. Future Shock. New York: Random House, 1970.
- Toffler, A. The Adaptive Corporation. New York: McGraw-Hill, 1985.
- Toft, G.S. "Synoptic (One Best Way) Approaches of Strategic Management." J. Rabin, G.J. Miller, and W.B. Hildreth (Eds.). Handbook of Strategic Management. New York: Marcel Dekker, 1989:3-33.
- Vlahos, M.E. "Military Reform in Historical Perspective." Orbis, Summer 1983:245-253.
- Wamsley, G.L. and Zald, M.N. "The Political Economy of Public Organizations." In Perry, J.L. and Kraemer, K.L. (Eds.). Public Management: Public and Private Perspectives. Palo Alto: Mayfield, 1983:133-141.
- Wamsley, G.L., and Zald, M.N. The Political Economy of Public Organizations. Bloomington, IN: Indiana University Press, 1976.
- Warwick, D.P. A Theory of Public Bureaucracy. Cambridge, MA: Harvard University Press, 1975.
- Weinburg, M. "Public Management and Private Management." A Diminishing Gap?" Journal of Policy Analysis and Management, 1983, 3:107-125.

- Wheelen, T.L. and Hunger, J.D. "Strategic Management of Not-For-Profit Organizations." Strategic Management and Business Policy. 2nd ed. Reading, Massachusetts: Addison-Wesley, 1986:293-309.
- Whorton, J.W., and Worthley, J.A. "A perspective on the challenge of public management: Environmental paradox and organizational culture." Academy of Management Review, 1981, 6:357-361.
- Wildavsky, A. The New Politics of the Budgetary Process. Glenview, IL: Scott, Foresman and Company, 1988.
- Williams, R.E. "Intent, Impact and Public Policy Consequences of Increased Congressional Control of Department of the Navy Budget Execution." Master's Thesis. Monterey: Naval Postgraduate School, 1988.
- Wilson, J.Q. Bureaucracy: What Government Agencies Do and Why They Do IT. New York: Basic Books, 1989.
- Wortman, M.S. "Strategic Management: Not-For-Profit Organizations." D.E. Schendel and C.W. Hofer (Eds.) Strategic Management. Boston: Little, Brown, and Co., 1979:353-381.
- Young, Arthur D. & Co., with the Hay Group. A Management Study of the Office of the Secretary of Defense. 31 August 1987.
- Zif, J. "Managerial Strategic Behavior in State-Owned Enterprises -- Business and Political Orientations." Management Science, 1981, 27, 1326-1339,

Distribution List

<u>Agency</u>	<u>No. of copies</u>
Defense Technical Information Center Cameron Station Alexandria, VA 22314	2
Dudley Knox Library, Code 0142 Naval Postgraduate School Monterey, CA 93943	2
Office of Research Administration Code 08 Naval Postgraduate School Monterey, CA 93943	1
Library, Center for Naval Analyses 4401 Ford Avenue Alexandria, VA 22302-0268	1
Department of Administrative Sciences Library Code AS Naval Postgraduate School Monterey, CA 93943	1
Andrew Marshall Director, Net Assessment OSD/NA Room 3A930 Office of the Secretary of Defense Washington, DC 20501	5
CAPT Donald Pilling, USN Director, Defense Policy OEB Room 308 National Security Council Staff 17 Pennsylvania Avenue Washington, DC 20506	2

CAPT Jerry Murphy, USN Chief Strategic Planning USD A PI/SP Room 3E10 Office of the Secretary of Defense Washington, DC 20301	2
Dr. Daniel Goure/LTC Bruce MacDonald, USAF Competitive Strategies Office OSD/OPDUSD (S&R) (CSO) PNT Room 1E801/5 Office of the Secretary of Defense Washington, DC 20301	2
Dr. Nancy C. Roberts, Associate Professor Administrative Science Department (AS/Rc) Naval Postgraduate School Monterey, CA 93943-5100	40
Dr. James Tritten, Associate Professor Commander, U.S. Navy (Ret.) Department of National Security Affairs (NS/Tr) Naval Postgraduate School Monterey, CA 93943-5100	1
Dr. Darnell Whitt, Associate Professor Defense Resources Education Management Center Code 6417 Naval Postgraduate School Monterey, CA 93943-5100	1
LTC Ken Allard, USA Office of the Deputy Under Secretary of Defense (Total Quality Management) Pnt Room 3E144 Office of the Secretary of Defense Washington, DC 20301-3000	1
Dr. David J. Andre Colonel, U.S. Army (Ret.) Mail Stop T1-13-1 Science Applications International Corp. 1710 Goodridge Dr. McLean, VA 22102	1

Professor Bob W. Backoff College of Business Ohio State University 1775 College Road Columbus, OH 43210	1
VADM John A. Baldwin, USN President National Defense University Ft. Leslie J. McNair Washington, DC 20319-6000	1
Dr. James Barber Captain, U.S. Navy (Ret.) Executive Director U.S. Naval Institute Annapolis, MD 21402	1
Dr. Roger Barnett Captain, U.S. Navy (Ret.) National Security Research Suite 330 3031 Javier Road Fairfax, VA 22031	1
Col. John Boyd (Ret.) 950 Lavens Circle Apt. F-302 Del Ray Beach, FL 33444	1
Professor Barry L. Bozeman College of Engineering 305 Link Hall Syracuse, NY 13244	1
Dr. Thomas Brown Manager, Strategic Analysis Northrop Corporation 8900 E. Washington Blvd. Pico Rivera, CA 90660-3737	1

Prof. John Bryson University of Minnesota HHH Institute of Public Affairs 261 Humphrey Center Minneapolis, MN 55455	1
Mr. Mike Burns Business Executives for National Security, Inc. 601 Pennsylvania Avenue N.W. Suite 700 Washington, DC 20004-2602	1
LTG G. Lee Butler, USAF Strategic Plans & Policy J-5 Pnt Room 2E966 Office of the Joint Chiefs of Staff Washington, DC 20301	1
Commander Diane Carnevale, U.S.N. Strategic Concepts Group (OP-6030) Office of the CNO PNT Rm 4E514 Navy Department Washington, DC 20350-2000	1
Mr. John Coan Program Manager National Defense Executive Reserve HCHB Romm H8378 U.S. Department of Commerce Washington, DC 20230	2
Dr. Eliot A. Cohen Professor and Director of Strategic Studies The Paul H. Nitze School of Advanced International Studies The Johns Hopkins University 1619 Massachusetts Avenue, N.W. Washington, DC 20036	1

Mr. Seth Cropsey (please forward) c/o Principal Deputy Assistant Secretary (Special Operations and LIC) Pnt Room 2E258 Washington, DC 20301-2400	1
Dr. Mary J. Culnan School of Business Administration Georgetown University Washington, DC 20057	1
Dr. Donald C. Daniel Chairman, Campaign and Strategy Department Center for Naval Warfare Studies Naval War College Newport, RI 02841-5010	1
Professor Peter deLeon Graduate School of Public Affairs University of Colorado at Denver 1200 Larimer Street Campus Box 142 Denver, CO 80204-5300	1
CAPT Richard Diamond, USN OP-603 Pnt 4E486 Office of the Chief of Naval Operations Washington, DC 20350	1
Dr. Lynn Eden Center for International Security and Arms Control 320 Galvez Street Stanford, CA 94305-6165	1
Dr. Carson Eoyang NASA Code ND Washington, DC 20546	1

Thomas H. Etzold President The Ivy Group, Inc. 1234 Mars Avenue, NW Washington, DC 20005	1
Professor J. Ronald Fox Morgan Hall 220 Graduate School of Business Administration Harvard University Boston, MA 02163	1
Dr. Robert G. Gard, Jr. Lieutenant General, U.S. Army (Ret.) President Monterey Institute of International Studies 425 Van Buren Street Monterey, CA 93940	1
Lt. Comm. John H. Garner, Jr., U.S.N. Armed Forces Communications and Electronics Assoc. International Headquarters 4400 Fair Lakes Court Fairfax, VA 22033-3899	1
Dr. James George Center for Naval Analyses 4401 Ford Avenue Alexandria, VA 22301	1
Dr. Frederick Giessler Colonel, U.S. Air Force (Ret.) Science Applications International Corp. 1710 Goodridge Drive P. O. Box 1303 McLean, VA 22102	2
Dr. Alan L. Gropman Syscon Corporation 1000 Thomas Jefferson St., NW Washington, DC 20007	1

Dr. J.A. Guertin, SES Assistant for Educational Resources (OP-09BC) Office of the Assistant VCNO Pnt Room 4D386 Washington, DC 20350-2000	1
CDR Keith Hahn CNO Executive Panel (OP-OOK) 4401 Ford Avenue Alexandria, VA 22302-0268	1
Professor Paul Y. Hammond Graduate School of Public & International Affairs University of Pittsburgh Pittsburgh, PA 15260	1
CAPT Forrest A. Horton, USN CNO Strategic Policy Analysis Group Center for Naval Analyses 4401 Ford Avenue Alexandria, VA 22301	1
Professor Anne Huff Dept. of Business Administration College of Commerce and Business Administration 350 Commerce Building West 1206 South Sixth St. Champaign, IL 61820	1
Dr. Paul Keal University College The University of New South Wales Australian Defence Force Academy	1
COL Thomas A Keaney, USAF Chairman, Department of Strategy National War College Ft. Leslie J. McNair Washington, DC 20319-6000	1
Mr. Frederick Kiley Director, National Defense University Press National Defense University Ft. Leslie J. McNair Washington, DC 20319-6000	1

Dr. Gary Klein President Klein Associates 800 Livermore Street P. O. Box 264 Yellow Springs, OH 45387	1
William E. Kovacic George Mason University School of Law 3401 North Fairfax Dr. Arlington, VA 22201	1
Mr. Paul Kozemchak 6507 Lakeview Drive Falls Church, VA 22241	1
Mr. James R. Locher, III Assistant Secretary of Sec. of Defense (SOLIC) The Pentagon Room 2E258 Washington, DC 20301-1000	1
Dr. J. J. Martin Senior Vice-President Science Applications International Corp. 10260 Campus Point Drive San Diego, CA 92121	1
Dr. Kleber S. Masterson Rear Admiral, U.S. Navy (Ret.) Vice President - Booz Allen & Hamilton Crystal Square #2, Suite 1100 1725 Jefferson Davis Highway Arlington, VA 22202-4158	1
Mr. Michael McCune Commander, U. S. Navy (Ret.) 6905 Lamp Post Lane Alexandria, VA 22306	1

LTC Jeffry McKittrick, USA Office of the Vice President White House Washington, DC 20500	1
CDR Mark L. Mitchell COMNAVSUPSYSCOM HQ (Code 00XI) Washington, DC 20376-5000	2
Dr. Jeffrey S. Milstein Strategic Analyst and Planner Organization of the Joint Chiefs of Staff Plans and Policy Directorate Strategy Division The Pentagon, Room 2E949 Washington, DC 20301	1
Mr. James W. Morrison Vice-President Business Executives for National Security, Inc. 601 Pennsylvania Avenue, N. W. Suite 700 Washington, DC 20004-2502	1
CDR William H. Nelson, U.S.N. Center for Naval Warfare Studies Naval War College Newport, RI 02841	1
Mr. George E. Pickett, Jr. Northrop Analysis Center 2 Lafayette Centre 1133 21st Street, NW Washington, DC 20036	1
Professor Hal G. Rainey University of Georgia Dept. of Political Science Baldwin Hall Athens, GA 30602	1

Professor Peter Ring College of Business Loyola Marymount University Faculty Annex 15 Los Angeles, CA 90045	1
Dr. James Roche Captain, U.S. Navy (Ret.) Northrop Analysis Center 2 Lafayette Centre 1133 21st Street, NW Washington, DC 20036	1
Professor Steven P. Rosen Strategy Department Naval War College Newport, RI 02841	1
Professor Scott Sagan Department of Political Science Building 160 Room 162D Stanford University Stanford, CA 94305	1
CAPT Ronald C. St. Martin, USN (Ret.) Northrop Analysis Center 1133 21st St., NW Suite 700 Washington, DC 20036	1
LCDR William J. Schworer Director, Systems Integrity Naval Supply Center Code 600 937 N. Harbor Drive San Diego, CA 92132	1
CAPT Larry Seaquist, USN ODUSD/P (S&R) Pnt Room 4E829 Office of the Secretary of Defense Washington, DC 20301	1

Dr. Perry Smith Major General, U. S. Air Force (Ret.) P. O. Box 15666 Augusta, GA 30919-1666	1
Mr. Don Snider Colonel, U. S. Army (Ret.) Center for Strategic & International Studies Suite 400 1800 K Street, N.W. Washington, DC 20006	1
CAPT James Stark, USN Executive Director OP-OOK CNO Executive Panel Center for Naval Analyses 4401 Ford Avenue Alexandria, VA 22302	1
Professor John M. Stevens 217 Burrowes Building Penn State University University Park, PA 16802	1
Dr. George E. Thibault Booz-Allen & Hamilton, Inc. Crystal Square 2, Suite 1100 1725 Jefferson Davis Hwy. Arlington, VA 22202-4158	1
Mr. Earl Washington Vice President, Strategic Management Rockwell Defense Electronics P. O. Box 3105 Anaheim, CA 92803	1
Mr. Barry D. Watts Senior Analyst Northrop Corporation Suite 700 2 Lafayette Centre 1133 21st Street, N. W. Washington, DC 20036	1

Dr. Charles Wolf
Director, RAND Graduate School
RAND Corporation
P. O. Box 2138
Santa Monica, CA 90406-2130

1

Dr. John Allen Williams
Associate Professor and Chairman
Loyola University at Chicago
6525 North Sheridan Rd.
Chicago, IL 60626

1

DUDLEY KNOX LIBRARY



3 2768 00330432 0